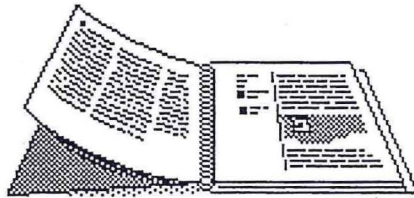


Zentrum für Allgemeine Sprachwissenschaft,
Sprachtypologie und Universalienforschung

ZAS Papers in Linguistics

Volume 30
October 2003



Edited by
Regine Eckardt

ISSN 1435-9588



Questions and Focus

herausgegeben

von

Regine Eckardt

Questions and Focus

Herausgegeben von
Regine Eckardt

<i>Regine Eckardt (ZAS Berlin)</i> Einleitung	v
<i>Markus Fischer (Humboldt-Universität zu Berlin)</i> Ein Zweifelsfall: <i>zweifeln</i> im Deutschen	1
<i>Florian Schwarz (Humboldt-Universität zu Berlin / ZAS Berlin)</i> Focus Marking in Kikuyu	41
Kontaktadressen der Autoren	119

Questions and Focus

Einleitung

Der vorliegende Band präsentiert zwei Arbeiten, die sich im Themenkreis Frage—Fokus bewegen. Seit langem schon sind verschiedene Interdependenzen von Fragesemantik und Fokussierung bekannt:

- Fragen und Antworten korrelieren in der Weise, daß (in der Regel) der Fokus der Antwort mit der erfragten Konstituente übereinstimmt.
- Der semantisch-pragmatische Effekt einer Fokussierung läßt sich (in der Regel) begreifen als eine Evokation von Alternativen zur fokussierten Konstituente (bzw. ihres Denotats).
- Die kommunikative Funktion einer Frage läßt sich dadurch formal erfassen, daß man den Beitrag der Frage als die Menge aller alternativ möglichen Antworten (in Kurz- oder Langform) repräsentiert.
- Fokussierung und Fragemarkierung greifen im typologischen Vergleich häufig auf ein verwandtes Forminventar zurück.

Während die Konruenz von Fragen und Fokussierung in einem Kernbereich von Daten gut etabliert ist, bleibt weitgehend unverstanden, welcher Teil der (jeweils sprachspezifischen) Daten im Umfeld von Frageform und Fokussierungsstrukturen eine kontingente „Korona“ dieses Kernbereichs darstellt bzw. wie weit der systematische Zusammenhang zwischen Fragen und Fokussierung reicht. Beide Arbeiten tragen zu einem besseren Verständnis dieses Aspekts bei.

Markus Fischers Aufsatz widmet sich dem Phänomen der eingebetteten Fragesätze unter Einstellungsverben, speziell dem deutschen Verb *zweifeln*. Einstellungsverben vieler Sprachen erlauben die syntaktisch-semantische Kombination mit Fragen, wobei der semantische Beitrag der Frage nicht in einem Sprechakt sondern indirekt („monologisch“) ausgewertet wird. Schon die Betrachtung einer einzelnen Sprache (hier: des Deutschen) beweist, daß die empirisch zulässigen Konstruktionen und die *a priori* möglichen Kombinationen nicht unbedingt deckungsgleich sind. Welche Faktoren bestimmen die Grammatik eingebetteter Fragesätze? Fischer entwickelt eine semantisch/pragmatische Analyse eingebetteter Fragen unter *zweifeln* und dual dazu *glauben*, mithilfe der er die scheinbar unsystematischen Lizenzierungsbedingungen für *daß*-Sätze, *ob*-Fragen und *Wh*-Fragen ableitet. Die Untersuchung der Daten in weiteren europäischen Sprachen wird angerissen und verweist programmatisch auf ein umfassenderes Projekt der Auslotung der typologischen Variationsdimensionen dieses pragmatischen Ansatzes.

Florian Schwarz nähert sich dem Themenkomplex von der typologischen Perspektive. Er untersucht das Kikuyu, eine in Kenia gesprochene Bantusprache. Diese besitzt ein Spektrum von auf der Partikel *ne* basierenden Konstruktionen: Fragekonstruktionen, Kopulakonstruktionen und eine Voranstellungskonstruktion präsentativen Charakters. Der erste Teil der Arbeit, in dem vorangegangene Analysen der *ne*-Konstruktion im Kikuyu kritisiert werden, zeigt exemplarisch, wie problematisch die Übertragung von syntakto-semantischen Konstruktionen wie „cleft-Konstruktion“ aus Sprachen wie Englisch oder Deutsch in eine völlig andere Sprache ist. Schwarz' detaillierte Analyse auf der Basis eigener Informantenbefragungen kann die syntaktisch-pragmatische Funktion der *ne*-Konstruktion exakter definieren. Unter Rückgriff auf die syntaktischen Kategorien der Topik-Phrase und Fokus-Phrase wird eine Analyse der *ne*-Daten als Fokuskonstruktion entwickelt, die das Datenspektrum besser als vorangegangene Theorien erfassen kann.

Schließlich berührt auch Schwarz' Arbeit die Frage der korrekten semantisch-pragmatischen Interdependenzen zwischen Fokussierung und Fragestellung. Auch im Kikuyu finden sich Spuren der oben erwähnten kontingenten Korona von sprachgeschichtlich verwandten Konstruktionen (der Fokussierung, der Fragebildung, etc.). Als ein Beispiel diskutiert Schwarz im Kikuyu die Kopulakonstruktion auf der Basis von *ne*, die mutmaßlich zwar auf eine transparente *ne*-Konstruktion zurückgeht, sich aber inzwischen, wie Schwarz argumentiert, in Einzelaspekten unabhängig weiterentwickelt hat.

Die Arbeiten sind im Umfeld des von der DFG finanzierten Projekts „Fragen und Antworten“ am Zentrum für Allgemeine Sprachwissenschaft (ZAS) Berlin, entstanden. Wir möchten Mechthild Bernhard und Paul D. Doherty für ihre kompetente und engagierte Unterstützung danken, die sie bei der materialen Realisierung dieses Arbeitspapiers geleistet haben.

Berlin, im Oktober 2003

Regine Eckardt
Markus Fischer
Florian Schwarz

Ein Zweifelsfall: *zweifeln* im Deutschen*

Markus Fischer
Humboldt-Universität zu Berlin

Abstract

Two main types of sentences are traditionally distinguished in the context of semantic theories of questions and answers: declarative sentences, corresponding to statements, and interrogative sentences, corresponding to questions. The interrogative forms can be further subdivided into dialectical ones (yes-no-questions) and non-dialectical ones (constituent questions). These distinctions are made for both root and embedded sentences. The predicates that select sentential complements fall into three classes: predicates that license only declaratives, those that allow only for interrogatives, and those that embed both types of sentences. In this connection, verbs of doubt are interesting in that they allow for declaratives as well as dialectical interrogatives, while non-dialectical interrogatives do not seem to be appropriate complements.

In what follows, our main concern will be with the German verb of doubt *zweifeln* and its possible sentential complements. Speaker intuitions as to which constructions are grammatical or acceptable vary, particularly with respect to rare expressions like *zweifeln*. Therefore, interviews and corpus analysis were applied as a means to acquire reliable linguistic data. These as well as data from historical sources and from some languages other than German (esp. English and Italian) are presented and analysed. In the last section, based on the notion of ‘subjective probability’, an attempt is made at explaining the observations.

1 Der Fall

Für die Theorie von Fragen ist interessant, welche Verben welche Art von Satzkomplementen auswählen. Man betrachte die Sätze unter (1), (2) und (3).

- (1) a. Maria weiß, dass Paul die Alpen zu Fuß überquert hat.
b. Maria weiß, ob Paul die Alpen zu Fuß überquert hat.
c. Maria weiß, wer die Alpen zu Fuß überquert hat.
d. Maria weiß, wann Paul die Alpen zu Fuß überquert hat.
- (2) a. * Maria fragt sich, dass Paul die Alpen zu Fuß überquert hat.
b. Maria fragt sich, ob Paul die Alpen zu Fuß überquert hat.
c. Maria fragt sich, wer die Alpen zu Fuß überquert hat.
d. Maria fragt sich, wann Paul die Alpen zu Fuß überquert hat.
- (3) a. Maria glaubt, dass Paul die Alpen zu Fuß überquert hat.

* Das hier dargestellte Problem geht auf ein Seminar unter dem Titel „Syntax und Semantik von Fragen und Antworten“, das Prof. Manfred Krifka im Wintersemester 2000/01 an der Humboldt Universität zu Berlin anbot, zurück; ihm und allen Informantinnen und Informanten danke ich herzlich. Für Unterstützung bei der Datensammlung und hilfreiche Kritik danke ich Stella Alberti, Christiane Fischer, Nurit Hirschfeld, Andreas Haida, Anke Lüdeling, Christina Meinik, Ilja Pavljukewitch, Kerstin Schwabe, Joachim Weber, Ilse Zimmermann und den Teilnehmern der Sitzung des ZAS-Semantikzirkels vom 27.1.2003.

- b. * Maria glaubt, ob Paul die Alpen zu Fuß überquert hat.
- c. * Maria glaubt, wer die Alpen zu Fuß überquert hat.
- d. * Maria glaubt, wann Paul die Alpen zu Fuß überquert hat.

Verben, die *wer-* oder *wann-*Komplemente zulassen, erlauben auch durch andere „w-Wörter“ eingeleitete Satzkomplemente. Eine erste Einteilung der Verben nach der Art möglicher Satzkomplemente sähe danach so aus:

1. Verben wie *wissen*: *dass*-Sätze, *ob*-Sätze, w-Wort-Sätze,
2. Verben wie *sich fragen*: *ob*-Sätze und w-Wort-Sätze,
3. Verben wie *glauben*: nur *dass*-Sätze.

Es scheint, dass die Verben, die *ob*-Sätze als Komplemente zulassen, auch w-Wort-Sätze erlauben und umgekehrt alle Verben, die w-Wort-Sätze regieren können, auch *ob*-Sätze erlauben. Eine entsprechende Beobachtung für das Englische findet sich z. B. bei Karttunen (1977). Karttunen gibt auch zwei Ausnahmen zu der Regel an, dass *ob*-Sätze und w-Wort-Sätze gemeinsam als mögliche Komplemente auftreten.

Die erste Ausnahme bilden *surprise*-Verben, sie lassen nur „wh-Wort-Komplemente“, aber keine *whether-* bzw. *if*-Sätze zu.¹ Vergleichbar verhalten sich im Deutschen *überrascht sein* und *sich wundern*.²

Die zweite Ausnahme betrifft Verben des Zweifels, insbesondere das transitive Verb *doubt*, welches *that-* und *whether-* bzw. *if*-Komplementsätze erlaubt, aber keine wh-Komplemente. Im Deutschen spielt das intransitive Verb *zweifeln* eine ähnliche Rolle, man betrachte dazu die Beispiele unter (4).

- (4) a. Maria zweifelt, dass Paul die Alpen zu Fuß überquert hat.
- b. Maria zweifelt, ob Paul die Alpen zu Fuß überquert hat.
- c. * Maria zweifelt, wer die Alpen zu Fuß überquert hat.
- d. * Maria zweifelt, wann Paul die Alpen zu Fuß überquert hat.

Man beachte, dass die Intuitionen kompetenter Sprecher, was die sprachliche Beurteilung von Sätzen wie unter (4) angeht, nicht ganz einheitlich sind. Abschnitt 2 der vorliegenden Arbeit dient dazu, Klarheit über die zulässigen *zweifeln*-Konstruktionen zu gewinnen.

Die obige Einteilung satzeinbettender Verben lässt sich natürlich verfeinern. Bei Karttunen (1977) werden die „fragesatzeinbettenden“ Verben in verschiedene Unterklassen eingeteilt. Eingebettete „Fragesätze“ sind bei Karttunen durch ein wh-Wort oder *whether* eingeleitete Interrogativkonstruktionen. Das bedeutet übertragen auf das Deutsche, dass sowohl w-Wort- wie auch *ob*-Sätze Fragesätze sind. Diese Sprechweise wollen wir im Folgenden beibehalten, ohne damit jedoch zu behaupten, dass alle *ob-* bzw. w-Wort-Sätze notwendig als Fragen im Sinne einer semantischen Theorie interpretiert werden.

Auf Grund semantischer Eigenschaften unterscheidet Ginzburg (1996) vier Oberklassen satzeinbettender Prädikate. Typische Vertreter jener Klassen sind *berichten*, *wissen*, *fragen* bzw. *sich fragen* und *glauben*. Die Verben der ersten drei Klassen erlauben Interrogativkonstruktionen als Satzkomplemente, aber nur bei den Verben der *fragen*-Klasse werden diese Interrogativkomplemente semantisch als echte Fragen interpretiert. Wichtig für unsere Zwecke ist, dass *zweifeln* zwar in die *glauben*-Klasse, das sind bei Ginzburg die „Wahr-Falsch-Prädikate“, gehören sollte, im Unterschied zu den übrigen Elementen jener Klasse aber nicht nur *dass-* bzw. *that*-Satzkomplemente zulässt.

¹ Zu den „wh-Wörtern“ zählt auch *how*, während *whether* zunächst nicht darunter fällt.

² Bei den zugehörigen Komplementen handelt es sich anscheinend um eingebettete Exklamativsätze.

Die von Karttunen (1977) vorgeschlagene und durch (1), (2) und (3) exemplifizierte Zusammenfassung von *ob*- und eingebetteten *w*-Wort-Sätzen zu einer Klasse von „Fragesätzen“ wird allgemein Fragetheorien zu Grunde gelegt, und in dieser Hinsicht sind Verben des Zweifels interessant.

Dass *zweifeln* sich merkwürdig verhält, ist auch für das Deutsche bekannt. Eine Zusammenfassung und mögliche Erklärung gibt Eisenberg (1999: 489):

„**Zweifeln** ist ein umstrittenes Verb. **Zweifeln, daß** ist jedenfalls grammatisch, **zweifeln, wie** ist jedenfalls ungrammatisch. **Zweifeln, ob** ist ganz gebräuchlich, aber synchron ungrammatisch. Es handelt sich dabei um einen jener Grammatikfehler, die unmittelbar das Denken betreffen und zugleich einen Eingriff in das Lexikon darstellen. (...)“

„(...) **Zweifeln, daß** betrifft einen Sachverhalt und thematisiert keine Alternativen. **Zweifeln, ob** schließt die Alternative mit ein. Es lässt damit die Position des Sprechers bzw. des vom Subjekt Bezeichneten im Unklaren.“

„**Zweifeln, ob** ist die ältere Verwendung, **zweifeln, daß** ist demgegenüber jung. Etablieren sich beide Verwendungen nebeneinander, so haben wir damit ein Verb, das nur **daß**- und **ob**-Komplemente, nicht aber **w**-Komplemente nimmt. Solche Verben gibt es an sich im Deutschen nicht. Außerdem würde bei **zweifeln** der **daß**-Satz dasselbe bedeuten wie der **ob**-Satz. Auch das gibt es sonst nicht. An die Stelle des eigentlichen **zweifeln** treten gegenwärtig verstärkt **bezweifeln** und **anzweifeln**. Beide schließen jedenfalls das **ob**-Komplement aus.“³

Offenbar kann *zweifeln* von *an* regierte präpositionale Komplemente einbetten, Nominalphrasen sind als Komplemente unzulässig. In dieser Arbeit wird *zweifeln* mit Satzkomplement betrachtet, nur am Rande dagegen *zweifeln – an* oder die abgeleiteten transitiven Verben *anzweifeln* oder *bezweifeln*. Im Folgenden versuche ich zu zeigen, dass

- *zweifeln – ob* (zumindest in der gegenwärtigen deutschen Schriftsprache) wenigstens so gebräuchlich ist wie *zweifeln – dass*,
- kompetente Sprecher des Deutschen, die *zweifeln – dass* in geeigneten Ausdrücken akzeptieren, auch *zweifeln – ob* in geeigneten Ausdrücken akzeptieren und zu beiden Konstruktionen relativ einheitliche Intuitionen haben,
- systematische Unterschiede in Gebrauch, Akzeptabilität und Interpretation zwischen *zweifeln – dass* und *zweifeln – ob* bestehen.

Zu diesem Zweck sammelte ich Daten zu *zweifeln* plus Satzkomplement mit Hilfe von Textkorpora und Sprecherbefragungen. Textkorpora liefern „echte“ Vorkommen der Konstruktionen und erlauben Aussagen über deren Häufigkeit. Kompetente Sprecher dagegen können Akzeptabilitätsurteile zu Sätzen mit *zweifeln* sowie Hinweise zu deren Interpretation abgeben. Aus den so gewonnenen Daten, welche im nächsten Abschnitt vorgestellt werden, sollten sich die zulässigen Verwendungen von *zweifeln* mit Satzkomplement ergeben. Im dritten Abschnitt wird dann der Versuch unternommen, die Konstruktionen hinsichtlich Grammatikalität, Akzeptabilität und Interpretation zu erklären.

³ Hervorhebungen wie im Original.

2 Daten zu *zweifeln*

Zunächst werden Korpusdaten zu *zweifeln* präsentiert. Sie sind nützlich insbesondere zur Entscheidung der Frage, ob *zweifeln – ob* tatsächlich als „synchron ungrammatisch“ angesehen werden sollte. Einschlägige Korpusätze dienen dann dazu, genauere Unterscheidungen zwischen den *zweifeln*-Konstruktionen zu treffen. Darauf aufbauend werden die Ergebnisse der Sprecherbefragungen präsentiert. Abschnitt 2.3 nimmt Bezug auf die Behauptung im obigen Zitat, dass *zweifeln – ob* die „ältere Verwendung“ gegenüber *zweifeln – dass* sei. In Abschnitt 2.4 werden Verben des Zweifels in einigen weiteren Sprachen kurz vorgestellt.

2.1 Korpusdaten

Zur Untersuchung des Gebrauchs von *zweifeln* mit Satzkomplement wertete ich die vom Institut für deutsche Sprache (IDS) in Mannheim der Öffentlichkeit über das Internet zur Verfügung gestellten Korpora der geschriebenen Sprache zu zwei verschiedenen Zeitpunkten, einmal im September 2001, einmal im Januar 2003, aus. Bei diesen Textkorpora handelt es sich um eine Sammlung in der Hauptsache nach 1949 publizierter Artikel (ost- und west-)deutscher, österreichischer und schweizerischer Zeitungen und Zeitschriften, in der aber auch Texte verschiedenster Art, von Literaturklassikern des 19. Jahrhunderts über politische Reden der 1990er Jahre bis zu Bedienungsanleitungen, berücksichtigt sind. Zusammensetzung und Umfang der IDS-Korpora verändern sich allerdings laufend.⁴

Auf die wichtige Frage, welche Rückschlüsse Beobachtungen an (Text-)Korpora auf Grammatik und Pragmatik der jeweiligen Sprache zulassen, kann ich nicht genauer eingehen. Die Antwort hängt von vielen Faktoren ab, unter anderem der linguistischen Fragestellung (für bestimmte Fragen sind Korpora einfach ungeeignet), der Beschaffenheit der Korpora, insbesondere Zusammensetzung, Art und Umfang des Sprachmaterials, und der Aufbereitung der Korpusdaten.⁵ Prinzipiell sind Korpusdaten niemals ausreichend zur Beschreibung einer Sprache, noch bieten sie vollständigen Ersatz für sprachliche Intuitionen.⁶

Umfang und Zusammensetzung der IDS-Korpora lassen jedoch hoffen, dass sich mit deren Hilfe die Gebrauchshäufigkeit von *zweifeln – ob* gegen diejenige von *zweifeln – dass* abschätzen lässt und dass an den Korpora beobachtete Unterscheidungen zwischen den *zweifeln*-Konstruktionen Gültigkeit für deren Gebrauch im Deutschen besitzen.

Erste Suche

Im September 2001 waren in den IDS-Korpora der geschriebenen Sprache 449 Mio. Textwörter, davon 374 Mio. als Wortformen identifiziert, in 20,81 Mio. Sätzen enthalten. Die Suche nach Vorkommen einer flektierten Form von *zweifeln* im gleichen Satz wie *ob* ergab 604 Treffer.⁷ Diese wurden „von Hand“ auf echte Vorkommen von *zweifeln – ob* durchgesehen, d. h. es wurde geprüft, ob es sich tatsächlich um einen *ob*-Satz als Komplement zu (einer flektierten Form von) *zweifeln* handelt. Von den 604 Treffern erwiesen sich 367 als einschlägig. Die Konstruktion kam in keinem Satz mehrfach vor.

Offenbar ist *zweifeln – ob* eine seltene Konstruktion. Geht man von höchstens einem Vorkommen pro Satz aus, so liegt die Vorkommenshäufigkeit bei ca. $1,8 \times 10^{-5}$ (Anzahl der echten

⁴ Im Februar 2001 z. B. hatten die öffentlich einsehbaren Korpora der geschriebenen Sprache einen Umfang von ca. 635 Mio. Textwörtern, zum Zeitpunkt der ersten Auswertung im September 2001 bestanden jene Korpora aus ca. 449 Mio. Textwörtern, zum Zeitpunkt der zweiten Auswertung im Januar 2003 war Material im Umfang von ca. 993 Mio. Textwörtern verfügbar.

⁵ Auch weitere nicht-linguistische Aspekte wie Lizenzrechte spielen eine wichtige Rolle für die Struktur und Verfügbarkeit von Korpora. Zum Problem der Repräsentativität von Korpora vergleiche man z. B. Kennedy (1998). Für das Deutsche sollte sich in dieser Hinsicht die Lage verbessern, sobald das „Deutsche Referenzkorpus“ (DEREKO) verfügbar sein wird.

⁶ Insbesondere sind weder alle Sätze eines Korpus notwendigerweise grammatisch, noch umfasst ein (reales) Korpus je alle grammatischen Sätze einer Sprache.

⁷ Suchanfrage: `&zweifeln /s0 ob`, d. h. Sätze, die *ob* und eine flektierte Form von *zweifeln* enthalten.

Vorkommen durch Anzahl der Sätze). Nimmt man weiter an, dass die Wahrscheinlichkeit, beim zufälligen Betrachten eines Satzes der Korpora die Konstruktion *zweifeln – ob* zu finden, konstant und unabhängig vom Wissen um die übrigen Sätze sei, so ist die angegebene Häufigkeit von *zweifeln – ob* gleichzeitig die natürliche Schätzung⁸ der Wahrscheinlichkeit des Vorkommens der Konstruktion. Jene Annahme ist streng genommen natürlich falsch. Allerdings erlauben die IDS-Korpora auch, die Quellen der Treffer einer Suchanfrage einzusehen. So konnte ich ausschließen, dass die gefundenen einschlägigen Treffer aus Texten nur eines oder weniger Autoren oder nur einem Zeitabschnitt (z. B. dem frühen 19. Jahrhundert) stammten oder durch Wiederholungen innerhalb eines Textes oder einer Quelle zustande gekommen wären.⁹ Außer den Quellen ist auch der Kotext der Ergebnisse einer Suche in den IDS-Korpora verfügbar. So lässt sich besser einschätzen, inwieweit das jeweils gefundene Vorkommen sprachlich aussagekräftig ist (man denke z. B. an gesternte Sätze aus einer linguistischen Fachzeitschrift).

Wenn die fragliche Konstruktion so selten vorkommt wie *zweifeln – ob*, dann ist schon der Umfang der benutzten Korpora entscheidend.¹⁰ Die IDS-Korpora der geschriebenen Sprache erlauben immerhin recht sichere Schätzungen. So ist die Chance, dass die oben zu $1,8 \times 10^{-5}$ berechnete Vorkommenshäufigkeit von *zweifeln – ob* von der „wahren“ Vorkommenswahrscheinlichkeit der Konstruktion um mehr als 5×10^{-6} abweicht, kleiner als 0,25%. Das ergibt sich unter der Annahme, dass *zweifeln – ob* in jedem der 20,81 Mio. Sätze unabhängig mit derselben „wahren“ Wahrscheinlichkeit auftritt, entweder mittels Approximation durch die Standardnormalverteilung oder direkt durch Auflösen der Gleichung $\text{quant}(\frac{\alpha}{2}, n, p) = x$ bzw. $\text{quant}(1 - \frac{\alpha}{2}, n, p) = x$ nach p , wobei $\text{quant}(\alpha, n, p)$ das α -Quantil der Bernoulli-Verteilung zu n und p ist, $p \in (0, 1)$ und in unserem Fall $\alpha = 2,5 \times 10^{-3}$, $n = 20,81 \times 10^6$, $x = 1,8 \times 10^{-5}$. Man beachte, dass *zweifeln – ob* zwar ein „seltenes Ereignis“ ist, die mit solchen Ereignissen verbundenen Schwierigkeiten, wie sie im Zusammenhang mit Worthäufigkeitsanalysen auftauchen, hier jedoch keine Rolle spielen, weil wir nur zwischen zwei Typen von Sätzen, nämlich solchen mit und solchen ohne *zweifeln – ob*, unterscheiden (vgl. Baayen (2001), auch im Hinblick auf die Annahme statistischer Unabhängigkeit).

Um nun die Konstruktion *zweifeln plus ob*-Nebensatz mit der entsprechenden *dass*-Konstruktion vergleichen zu können, machte ich die Gegenprobe und suchte nach Vorkommen einer flektierten Form von *zweifeln* im gleichen Satz wie *dass*.¹¹ Zunächst fand ich 1535 Sätze. Manuelles Aussortieren ließ lediglich 186 einschlägige Treffer übrig. Als einschlägig gelten dabei Sätze wie (5), nicht dagegen Sätze wie unter (6), weil bei ihnen nicht der *dass*-Nebensatz, sondern das Pronominaladverb *daran* Komplement von *zweifeln* ist.

Sofern es sich nicht um ausgedachte Sätze handelt, sind im Folgenden die Originalquellen der Beispiele jeweils in eckigen Klammern angegeben.

- (5) Fast alle vom “MM” Befragten zweifeln, dass dieses Modell den Blaumachern das Handwerk lege. [Mannheimer Morgen, 22.8.1995]
- (6) Da nun aber das moderne Museum in diesem Jahr jedenfalls nicht kommt, zweifle ich auch daran, daß das, was man zeigt, genügt, um das Bewußtsein im Positiven zu verändern. [Zweites Deutsches Fernsehen (ZDF), 2.2.1971]¹²

⁸ Sie ist in gewissem Sinne auch die beste, s. z. B. E. L. Lehmann (1983): *Point Estimation Theory*. Springer, New York.

⁹ Ein hübsches Beispiel zum dritten Punkt ist das Vorkommen des Ausdrucks *was glaubst du* in den IDS-Korpora der geschriebenen Sprache. Im September 2001 fanden sich 65 Vorkommen, davon 55 in der Verbindung „He, was glaubst du?“, alle 55 aus Artikeln des St. Galler Tageblattes: In der Zeit von Oktober 1998 bis Februar 2000 berichtete die Zeitung über ein gleichnamiges Projekt des Seelsorgerates der örtlichen Diözese.

¹⁰ Die Korpora der gesprochenen Sprache des IDS beispielsweise umfassen nur ca. 90000 Sätze. Nur sechs davon enthalten eine flektierte Form von *zweifeln*. Weder *zweifeln – ob* noch *zweifeln – dass* sind als Konstruktionen vertreten. Nimmt man an, dass *zweifeln – ob* mit Wahrscheinlichkeit 2×10^{-5} auftritt, so liegt die Chance, unter den 90000 Sätzen keinen Vertreter zu finden, noch bei über 16%.

¹¹ Suchanfrage: *&zweifeln /s0 &dass*, d. h. Sätze die (eine orthographische Variante von) *dass* und eine flektierte Form von *zweifeln* enthalten.

¹² Aus den IDS-Korpora der gesprochenen Sprache (transkribiert).

Die relative Vorkommenshäufigkeit von *zweifeln – dass* pro Satz ergibt sich – unter einer Unabhängigkeitsannahme ganz wie im Fall des *ob*-Komplements – zu $0,9 \times 10^{-5}$. Die Trefferzahlen sind in der nachfolgenden Tabelle zusammengefasst.

	<i>zweifeln – ob</i>	<i>zweifeln – dass</i>
Anzahl Treffer gesamt	604	1535
Anzahl einschlägiger Treffer	367	186
relative Häufigkeit pro Satz	$1,8 \times 10^{-5}$	$0,9 \times 10^{-5}$

Wir sehen, dass beide Konstruktionen, *zweifeln* mit *ob*- und *zweifeln* mit *dass*-Komplement, selten sind. Die relative Vorkommenshäufigkeit von *zweifeln – dass* ist (in den IDS-Korpora zum Zeitpunkt der Abfrage) nur halb so hoch wie die von *zweifeln – ob*, die *ob*-Konstruktion sollte also, wenn die IDS-Korpora einigermaßen repräsentativ sind, mindestens so gebräuchlich wie die *dass*-Konstruktion sein. Unter der Annahme von Eisenberg, dass *zweifeln – dass* grammatisch, *zweifeln – ob* jedoch „synchron ungrammatisch“ sei, wäre dies merkwürdig.

Beispiele für einschlägige Treffer zu *zweifeln – ob* aus den IDS-Korpora sind unter (7) bis (13) angegeben.

- (7) Luther hat lange gezweifelt, ob der Mensch vor Gott bestehen könne; ... [ZEIT, 29.8.1986]
- (8) Ein Spieler, der zweifelt, ob er nun auf Grund von Können oder Hautfarbe das Nationaltrikot trägt, geht zum vornherein mit einem Gewicht um den Hals aus der Umkleidekabine. [St. Galler Tagblatt, 4.11.1999]
- (9) In diesem Satz liegt die ganze Ungewissheit der Kinder, die zweifeln, ob sie alles richtig machen oder nicht. [Mannheimer Morgen, 12.6.1995]
- (10) Noch am Mittwoch vorher zweifelte er, ob er starten solle, aber anscheinend wollte er vorher keine Publicity. [Frankfurter Rundschau, 17.9.1997]
- (11) Kritiker zweifeln derweil, ob das jetzige Bekenntnis eines Großteils der Softwarezunft für NT nicht zu spät kommt. [COMPUTER ZEITUNG, 19.5.1993]
- (12) Ich zweifle, ob das Sparpotenzial realistisch errechnet worden ist, und vor allem weiss ich nicht, was es dem Kanton Zug bringt. [Züricher Tagesanzeiger, 7.5.1999]
- (13) Ob Shakespearen die Ehre der Erfindung gehört, zweifl' ich: genug, ... [Goethe, Schriften zur Literatur]

Wir machen drei Beobachtungen an den obigen Sätzen, deren erste die Moduswahl im *ob*-Komplementsatz, deren zweite das Nichtauftreten von Negation im Matrixsatz und deren dritte die Angabe von Alternativen im Komplementsatz betrifft.

In den eingebetteten *ob*-Sätzen der Beispiele (7) bis (13) tritt das Prädikat teils im Indikativ, teils im Konjunktiv I¹³ auf. Der Bedeutungsunterschied, welcher bei Verben wie *berichten*, die eine faktive und eine nichtfaktive Lesart besitzen, durch die Moduswahl entsteht, existiert nicht, weil *zweifeln* weder mit *dass*- noch mit *ob*-Komplement eine faktive Lesart zulässt.¹⁴ Inwiefern die Wahl des Verbmodus Einstellungen des Sprechers zur jeweils ausgedrückten Proposition anzeigt (in Analogie zur indirekten Rede), soll hier offen bleiben. Das seltene Auftreten des Konjunktiv II wie im zweiten *ob*-Nebensatz von Beispiel (14) kann als Potentialis interpretiert werden.

¹³ Nach verbreiteter Sprechweise die Konjunktive von Präsens, Perfekt und Futur.

¹⁴ Zur Faktivität vgl. auch Abschnitt 3.2.

- (14) Deshalb spielt es keine große Rolle, ob die Beweise reichen oder nicht. Ich zweifle, ob sie gerichtsverwertbar wären. [taz, 13.10.2001]¹⁵

In keinem der Beispielsätze (7) bis (13) befindet sich *zweifeln* im Skopus einer Negation. Das ist recht sicher kein Zufall, denn unter den 367 einschlägigen Sätzen gibt es nur eine Ausnahme zu der Vermutung, dass negiertes *zweifeln* keinen *ob*-Satz einbetten kann. Der Ausnahmesatz ist unter (15) angegeben. Der scheinbare Widerspruch zu der eben genannten Vermutung lässt sich „pragmatisch“ lösen, wie wir in Abschnitt 3 sehen werden.

- (15) Und keine Frau muss heute mehr zweifeln, ob sie sich gegen solche Taten wehren kann. [Züricher Tagesanzeiger, 16.4.1999]

Befindet sich *zweifeln* im Skopus einer Negation, so ist das zugehörige Komplement, falls überhaupt ein Satzkomplement, ein *dass*-Satz wie im Beispiel (16). Tatsächlich tritt *zweifeln* in 111 der 186 einschlägigen Sätze zu *zweifeln*–*dass* im Skopus einer Negation auf.

- (16) Niemand zweifelt, dass hier dem Öl, dem Erdgas und der Atomkraft der Weg geebnet wird, der günstigen Energie also. [Die Welt, 15.2.1969]

In (8) und (9) sind im *ob*-Satz explizit jeweils zwei Alternativen angegeben, in den Beispielen (7) und (10) bis (13) wird explizit nur eine Alternative genannt. Man vergleiche das mit der Situation bei (direkten) Ja-Nein-Fragen gegenüber Alternativenfragen.

Die Beobachtung, dass *zweifeln* *ob*-Sätze einbetten kann, die explizit mehr als eine Alternative ausdrücken, ist zusammen mit dem Verhalten von *zweifeln* unter Negation in den folgenden Unterabschnitten und schließlich in Abschnitt 3 für den theoretischen Teil wichtig.

Zweite Suche

Im Januar 2003 standen Teile des „Deutschen Referenzkorpus“ als DEREKO-pub-Korpora des IDS zur Verfügung. Es handelt sich um Zeitungstexte der 90er Jahre aus dem deutschsprachigen Raum, darunter Material, das schon zum Zeitpunkt der ersten Korpussuche zugänglich war. Allerdings ist die Textsammlung umfangreicher, die DEREKO-pub-Korpora bestanden zur Auswertungszeit aus ca. 993 Mio. Textwörtern, davon ca. 823 Mio. als Wortformen ausgewiesen, in 45,95 Mio. Sätzen. Wieder suchte ich nach Vorkommen von *zweifeln* im selben Satz wie *ob*.¹⁶ Die Suche lieferte 1123 Sätze. Diese Treffer wurden manuell nicht nur daraufhin geprüft, ob es sich tatsächlich um eine Konstruktion der Art *zweifeln*–*ob* handelte, die einschlägigen Treffer wurden auch danach eingeteilt, ob *zweifeln* im Skopus einer Negation auftrat und ob im *ob*-Komplementsatz explizit Alternativen angegeben waren oder nicht. Die Ergebnisse sind in der folgenden Tabelle zusammengefasst. In den rechten beiden Spalten der Tabelle sind überdies die Anzahlen von Vorkommen der Konstruktion *zweifeln*–*daran*–*ob* bzw. *anzweifeln*–*ob* aufgeführt.¹⁷ Von den 1123 Treffern waren 232 für keine Konstruktion einschlägig, drei konnten nicht eingeordnet werden, 15 wurden übersehen.

	<i>ob</i> [–ALT]	<i>ob</i> [+ALT]	<i>daran</i> ... <i>ob</i>	<i>an</i> ... <i>ob</i>
<i>zweifeln</i> [–NEG]	605	11	238	24
<i>zweifeln</i> [+NEG]	6	0	4	0

Die relative Vorkommenshäufigkeit von *zweifeln*–*ob* pro Satz ergibt sich aus 622 einschlägigen Treffern in 45,95 Mio. Sätzen zu $1,4 \times 10^{-5}$, also in der oben gefundenen Größenordnung. Sehr

¹⁵ Kein Treffer der ersten Suche.

¹⁶ Suchanfrage vgl. Fußnote 7.

¹⁷ Man vergleiche dazu die grammatische Konstruktion *glauben*–*daran*–*dass* und die ungrammatische Konstruktion *glauben*–*daran*–*ob*.

selten (6 von 622) sind Sätze, in denen negiertes *zweifeln* einen *ob*-Satz als Komplement hat. Etwas häufiger (11 von 622) sind *zweifeln*-Sätze, in denen im *ob*-Satz die Alternativen explizit gemacht werden. In allen elf Fällen handelte es sich um genau zwei Alternativen. Einige Beispiele für den Gebrauch von *zweifeln* – *ob* sind in Anhang A aufgeführt.

2.2 Sprecherbefragungen

Korpora liefern keine Grammatikalitäts- oder Akzeptabilitätsurteile für einzelne Sätze, auch wenn Sätze, die in einem Korpus vorkommen, mit hoher Wahrscheinlichkeit grammatisch und in geeignetem Kontext akzeptabel sind. Aus dem Nicht-Vorkommen einer Konstruktion können bestenfalls statistisch Rückschlüsse auf deren (Nicht-)Grammatikalität gezogen werden, vorausgesetzt es gelingt, die Vorkommenshäufigkeit der Konstruktion unter der Annahme abzuschätzen, sie sei in gewissem Sinn zulässig, und sofern die verwendeten Korpora repräsentativ genug sind.

In den nächsten beiden Unterabschnitten sind die Ergebnisse zweier Befragungen von Sprechern des Deutschen wiedergegeben. Sie liefern Akzeptabilitätsurteile zu den Konstruktionen *zweifeln* – *ob* und *zweifeln* – *dass*, insbesondere zu Sätzen, in denen *zweifeln* im Skopus einer Negation steht, und solchen, in denen im *ob*-Komplementsatz zwei oder mehr Alternativen explizit ausgedrückt werden. Überdies wurden Sätze der Art *zweifeln* mit *w*-Wort-Komplement getestet. Schließlich erhielt ich in Interviews im Rahmen der ersten Befragung von den Informanten Hinweise auf Interpretationsunterschiede insbesondere zwischen *zweifeln* mit *ob*-Komplement und *zweifeln* mit *dass*-Komplement.

Erste Befragung

Als Heuristik bat ich neun kompetente Sprecher des Deutschen¹⁸, schriftlich vorgelegte und nach Art der Konstruktion geordnete Sätze zunächst auf einer dreistufigen Akzeptabilitätsskala als akzeptabel und natürlich (+), merkwürdig (±) oder inakzeptabel (–) in einem jeweils geeignet ausdenkenden Kontext zu bewerten. Anschließend beantworteten sie mündlich gestellte Fragen zu deren Interpretation. Unter (17) und (18) sind die meisten Sätze der ersten drei Abschnitte des Fragebogens angegeben.¹⁹

- (17)
- a. Paul zweifelt, *dass/ob* Paris in Zukunft besser regiert werden wird.
 - b. Maria zweifelt, *dass/ob* Paul die Alpen zu Fuß überquert hat.
 - c. Hans zweifelt, *dass/ob* 2 plus 2 gleich 4 ist.
 - d. Maria zweifelt, *dass/ob* sie die Einladung von Paul annehmen soll.
 - e. Kaum einer zweifelt, *dass/ob* Maria und Paul heiraten werden.
 - f. Woods zweifelt, *dass/ob* ein Mann wie Christo beispielsweise diese “kosmische Dimension” besitze.
 - g. Woods zweifelt sehr, *dass/ob* ein Mann wie Christo beispielsweise diese “kosmische Dimension” besitze.
 - h. Woods zweifelt nicht, *dass/ob* ein Mann wie Christo beispielsweise diese “kosmische Dimension” besitze.
 - i. Woods zweifelt, *dass/ob* nicht ein Mann wie Christo beispielsweise diese “kosmische Dimension” besitze.

¹⁸ Fünf Frauen und vier Männer im Alter zwischen 20 und 50 Jahren, darunter kein(e) Linguist(in).

¹⁹ Die Sätze (17a) und (17e) haben sich zur zweiten Befragung hin verändert: In (17a) wurde *Paris* zu *Berlin*, in (17e) – etwas problematischer – *Kaum einer* zu *Niemand*. In (18a) ist der Gebrauch von *geeigneter* stilistisch anfechtbar, Satz (18b) wurde durch *Paul zweifelt, wie sich das Klima verändern wird.* ersetzt. Man vergleiche Anhang B.

- j. Woods zweifelt, *dass/ob* ein Mann wie Christo beispielsweise diese “kosmische Dimension” nicht besitze.
- (18) a. Paul zweifelt, welcher der beiden Kandidaten als Bürgermeister geeigneter ist.
 b. Paul zweifelt, wie das Wetter draußen ist.
 c. Maria zweifelt, welche Einladung sie annehmen soll.
 d. Maria zweifelt, welchen ihrer drei Liebhaber sie heiraten soll.
 e. Maria zweifelt, ob sie Wein oder Käse zum Abendessen mitbringen soll.
 f. Niemand zweifelt, wann Paul und Maria heiraten werden.

In der nachfolgenden Tabelle sind die von den Testpersonen zu den Sätzen unter (17) und (18) abgegebenen Akzeptabilitätsurteile dargestellt. Zwei der neun Informanten lehnten *zweifeln* mit Satzkomplement ganz ab, für sie kann *zweifeln* nur mit *an* eingeleitete Präpositionalphrasen einbetten, Nebensätze sind als Komplemente nur bei *bezweifeln* zulässig.

Satz	Inf 1	Inf 2	Inf 3	Inf 4	Inf 5	Inf 6	Inf 7	Inf 8	Inf 9
(17a) <i>dass/ob</i>	+/+	+/+	+/+	+/ \mp	\mp /+	+/-	+/+	-/-	-/-
(17b) <i>dass/ob</i>	+/+	+/+	\mp /+	+/+	+/ \mp	+/-	+/ \mp	-/-	-/-
(17c) <i>dass/ob</i>	+/+	+/+	+/+	+/ \mp	+/+	+/ \mp	+/+	-/-	-/-
(17d) <i>dass/ob</i>	+/+	-/+	\mp /+	\mp /+	\mp /+	\mp /+	+/+	-/-	-/-
(17e) [+NEG] <i>dass/ob</i>	+/ \mp	+/+	+/+	+/-	+/ \mp	+/-	+/-	-/-	-/-
(17f) <i>dass/ob</i>	+/+	+/+	+/+	+/+	+/+	+/+	+/+	-/-	-/-
(17g) <i>dass/ob</i>	+/+	+/+	+/+	+/+	+/+	+/+	+/+	-/-	-/-
(17h) [+NEG] <i>dass/ob</i>	+/-	+/+	+/+	+/-	+/ \mp	+/ \mp	+/ \mp	-/-	-/-
(17i) <i>dass/ob</i> [+NEG]	\mp /+	\mp /+	\mp /+	\mp / \mp	\mp /+	-/ \mp	\mp /+	-/-	-/-
(17j) <i>dass/ob</i> [+NEG]	+/+	+/-	+/+	\mp / \mp	\mp /-	\mp / \mp	+/-	-/-	-/-
(18a) <i>welcher der beiden</i>	+	\mp	+	+	+	\mp	+	-	-
(18b) <i>wie</i>	-	\mp	\mp	-	-	\mp	\mp	-	-
(18c) <i>welche</i>	+	\mp	+	\mp	+	+	+	-	-
(18d) <i>welchen ihrer drei</i>	+	\mp	+	-	+	+	+	-	-
(18e) <i>ob</i> [+ALT]	+	+	+	\mp	+	+	+	-	-
(18f) [+NEG] <i>wann</i>	+	-	+	-	-	+	+	-	-

An den Satzpaaren, in denen *dass* und *ob* variiert wurden, sieht man, dass *zweifeln-ob* in etwa so gut beurteilt wurde wie *zweifeln-dass*: etwas schlechter als die *dass*-Konstruktion in (17a), (17b) und (17c), etwas besser in Satz (17d), gleich gut in den Sätzen (17f) und (17g).

Die Sätze (17e) und (17h) zeigen, dass negiertes *zweifeln* mit *ob*-Satz klar schlechter abschneidet als mit dem entsprechenden *dass*-Satz. Allerdings ist nicht klar, ob die *ob*-Konstruktion tatsächlich inakzeptabel ist.

Das einzige Beispiel für einen von *zweifeln* abhängigen *ob*-Satz, der explizit zwei Alternativen benennt, ist Satz (18e), der offenbar akzeptiert wurde. Man beachte bei diesem Beispiel, dass das Subjekt des Matrixsatzes referentiell mit dem des *ob*-Satzes übereinstimmt.

Klar schlecht wurde die Konstruktion *zweifeln-wie*, vertreten durch Satz (18b), bewertet. Die übrigen Beispiele, in denen *zweifeln* ein *w*-Wort-Komplement besitzt, schneiden besser ab. Nicht eindeutig schlecht scheint Satz (18f) zu sein, in dem negiertes *zweifeln* einen *wann*-Satz einbettet. Recht gute Bewertungen erhielten dagegen die Beispiele (18a), (18c) und (18d) mit *welche(r/n)*-Komplement.

Nach den Erläuterungen, welche die Informanten hinsichtlich der Interpretation der Sätze gaben, haben die Konstruktionen *zweifeln-dass* und *zweifeln-ob*, falls beide akzeptabel sind, beide in etwa die Bedeutung von *glauben-dass nicht* oder wenigstens *vermuten-dass nicht*. Allerdings

liegt bei *zweifeln* – *ob* eher „echte Unsicherheit“ des Subjektes hinsichtlich der durch den *ob*-Satz (implizit) genannten Alternativen vor (vgl. das Eisenberg-Zitat in Abschnitt 1). Das Satzpaar (17b) beispielsweise erhielt die Interpretation, dass Maria eher glaubt, dass Paul die Alpen nicht zu Fuß überquert hat. Im Fall von *zweifeln* mit *dass*-Satz kann Maria sogar überzeugt sein, dass es nicht der Fall ist, dass Paul die Alpen zu Fuß überquert hat. Im Fall des *ob*-Satzes schließt Maria diese Möglichkeit nicht aus.

Die Sätze (18a), (18c) und (18d), in denen *zweifeln* jeweils einen von einer *welche(r/n)*-Nominalphrase eingeleiteten *w*-Wort-Satz regiert und die als überraschend akzeptabel durchgingen, wurden dahingehend interpretiert, dass das Subjekt zu *zweifeln* unentschieden hinsichtlich der gebotenen Alternativen sei. In (18a) sind das die beiden Kandidaten für das Amt des Bürgermeisters, in (18d) Marias drei Liebhaber. Zur Interpretation von Satz (18c) wurde angenommen, dass Maria (genau) zwei Einladungen zur Auswahl habe. Diejenigen der neun Sprecher, die den Satz (18f) mit *niemand zweifelt, wann* akzeptierten, gaben als dessen Bedeutung an, der Zeitpunkt der Heirat sei nun allgemein bekannt, eventuell auf Grund des Eintreffens bestimmter damit in Zusammenhang stehender Ereignisse.

Die *Woods*-Sätze (17i) und (17j), in denen jeweils im eingebetteten Satz eine Negation auftritt, empfanden die meisten Informanten als unklar. Die Variante mit *ob nicht* des Satzpaars (17i) schien ihnen besser als diejenige mit *dass nicht*. Als geeigneter Kontext wurde eine Situation vorgeschlagen, in der sich Woods gegen die Behauptung wendet, kein lebender Künstler besitze mehr jene „kosmische Dimension“. Dagegen schnitt die *ob*-Variante von (17j) schlechter ab als ihr *dass*-Pendant, weil sie ihrer Bedeutung nach der *ob*-Version von (17f) zu ähnlich wäre.

In den Sätzen (17d), (18c), (18d) und (18e), in denen Subjektsgleichheit zwischen Matrixsatz und eingebettetem Nebensatz herrscht, ist das Modalverb *soll* doppeldeutig zwischen Entscheidung und Verpflichtung des Subjektes.²⁰

Natürlich ist die hier angewandte Art der Datenerhebung methodisch zweifelhaft. Die Zahl der Informanten war gering, die Auswahl der Testpersonen weder zufällig noch nach irgendwelchen Standards repräsentativ, die Präsentation der Testsätze nicht neutral, die Urteilsskala grob und willkürlich, die mündlich gestellten Fragen möglicherweise suggestiv, was bestimmte Antworten betrifft. Schließlich fehlen in der ersten Befragung sowohl Vergleichssätze, die an Stelle von *zweifeln* andere geeignete Verben enthalten, wie auch Beispiele für *zweifeln* mit einem *ob*-Komplement, das mehr als zwei Alternativen ausdrückt.

In der Hoffnung, diese Mängel teilweise auszuräumen, verfasste ich einen zweiten Fragebogen, welcher bisher nicht befragten Testpersonen vorgelegt wurde.

Zweite Befragung

Bei den Teilnehmern der zweiten Befragung handelte es sich um insgesamt 42 Schülerinnen und Schüler zweier Abschlussklassen einer Berliner Oberschule des zweiten Bildungsweges. Der Test wurde im Sommer 2001 durchgeführt.

Wiederum wurden die Informanten gebeten, isoliert dargebotene Sätze in einem ihrer Vorstellungen gemäß möglichst geeigneten Kontext nach sprachlicher Akzeptabilität zu bewerten. Dazu stand eine fünfteilige Urteilsskala zur Verfügung, welche von **akzeptabel und natürlich** (1) über **noch akzeptabel** (2), **seltensam** (3) und **unnatürlich und kaum akzeptabel** (4) bis **inakzeptabel** (5) reichte. Es war möglich, Sätze unbewertet zu lassen.²¹

Sprachliche Urteile gemäß einer solchen diskreten Skala sind mit zwei wesentlichen Problemen behaftet, wie Bard et al. (1996) erläutern:

1. Das Kontinuum der möglichen Akzeptabilitätseinschätzungen wird durch die Urteilsskala willkürlich diskretisiert. Es entstehen „Rundungsfehler“ numerischer wie psychologischer

²⁰ Man vergleiche dazu die italienischen Beispiele (70a) und (70b) in Abschnitt 2.4.

²¹ Anzeigbar durch ein Fragezeichen oder keine Markierung.

Natur. Insbesondere können sich beim Vergleich der Bewertungen verschiedener Sätze (numerische) Rundungsfehler gleichen Vorzeichens summieren.

2. Die von einer Testperson abgegebenen Urteile sind nicht absolut, sondern nur relativ zur Gesamtheit der im Test präsentierten Sprachdaten gültig: Ein und dieselbe Konstruktion kann, zweimal auf die gleiche Weise, aber im Umfeld verschiedener Testdaten dargeboten, von derselben Testperson unterschiedlich bewertet werden. Solche Verschiebungen können systematischer Natur sein, d. h. unabhängig von den Schwankungen individueller Urteile.

Um der ersten Schwierigkeit Herr zu werden, schlagen Bard et al. (1996) ein der experimentellen Psychologie entlehntes Messverfahren vor („magnitude estimation“), welches ich jedoch nicht habe einsetzen können.

Das zweite Problem lässt sich entschärfen, indem man geeignete Vergleichsdaten in den Fragebogen aufnimmt. Außer Beispielen zu *zweifeln* mit Nebensatzkomplement finden sich daher die aus (19) resultierenden sechs Sätze zu *glauben*.

- (19) a. Hans glaubt, *dass/ob* 2 plus 2 gleich 4 ist.
- b. Hans glaubt, *dass/ob* 2 plus 2 ungleich 4 ist.
- c. Hans glaubt nicht, *dass/ob* 2 plus 2 gleich 4 ist.

Es ist klar, dass *glauben* nur *dass*-Komplemente zulässt. Entsprechend sollten die Sätze mit *glauben* – *dass* als akzeptabel, diejenigen mit *glauben* – *ob* als inakzeptabel eingestuft werden. Relativ zu den Bewertungen der *glauben*-Sätze werden dann diejenigen der *zweifeln*-Konstruktionen beurteilt. Schließlich wurden zur Ablenkung die Sätze unter (20) aufgenommen.

- (20) a. Maria zögert, dass sie die Einladung von Paul annehmen soll.
- b. Maria zögert, ob sie die Einladung von Paul annehmen soll.
- c. Maria zögert, welche Einladung sie annehmen soll.

Den Hauptteil des Fragebogens bildeten die oben vorgestellten Beispiele aus (17) und – mit Ausnahme von (18f) – (18) sowie die unter (21) angegebenen Sätze.

- (21) a. Clarisse zweifelt, *dass/ob* Ulrich sie wirklich liebt oder nur bewundert oder sie in Wahrheit nicht ausstehen kann.
- b. Clarisse zweifelt nicht, *dass/ob* Ulrich sie wirklich liebt oder nur bewundert oder sie in Wahrheit nicht ausstehen kann.
- c. Hans zweifelt nicht, *dass/ob* 2 plus 2 gleich 4 ist.
- d. Paul zweifelt, wer für die Misere der Bankgesellschaft verantwortlich ist.
- e. Paul zweifelt nicht, wer für die Misere der Bankgesellschaft verantwortlich ist.
- f. Niemand zweifelt, wer für die Misere der Bankgesellschaft verantwortlich ist.
- g. Maria zweifelt, dass sie Wein oder Käse zum Abendessen mitbringen soll.

Die 42 Informanten wurden in zwei Gruppen, einer von 26 und einer von 16 Testpersonen, befragt. Der ersten Gruppe wurden die Sätze in drei Abschnitten nach Konstruktion geordnet präsentiert, der zweiten Gruppe ohne Abschnittseinteilung in einer zufällig gewählten Satzreihenfolge. Alle Sätze und die zugehörigen Bewertungen durch die Informanten sind tabellarisch in Anhang B wiedergegeben und zwar geordnet nach (natürlicher) Mittelwert- und Varianzschätzung der jeweiligen Akzeptabilitätsnoten. Die ursprünglichen Satzreihenfolgen sind kenntlich gemacht.

Aus der Zusammenfassung der Bewertungen beider Informantengruppen ergibt sich die folgende Akzeptabilitätsordnung der durch die Testsätze vertretenen Konstruktionen.

1. Erwartungsgemäß wird *glauben – dass* im Allgemeinen als akzeptabel und natürlich empfunden, fast gleich auf liegt negiertes *zweifeln* mit *dass*-Komplement.
2. Die Beispiele, in denen *zweifeln* einen *dass*-Satz, einen *ob*-Satz, der explizit Alternativen benennt, oder einen durch eine *welche(r/n)*-Nominalphrase eingeleiteten *w*-Wort-Satz einbettet, sowie die Sätze, in denen negiertes *glauben* ein *dass*-Komplement hat, werden allgemein akzeptiert.
3. Sätze der Art *zweifeln – ob*, in denen im *ob*-Satz nicht mehr als eine Alternative genannt wird, schneiden etwas schlechter als die Varianten mit expliziten Alternativen ab.
4. Die Konstruktionen der Art *zweifeln* mit durch *wer* oder *wie* eingeleitetem *w*-Wort-Komplement werden als merkwürdig bis inakzeptabel bewertet, die Sätze mit *wie*-Komplement scheinen schlechter zu sein als jene mit *wer*-Komplement.
5. Werden im *dass*-Komplementsatz zu – negiertem oder nichtnegiertem – *zweifeln* explizit mehrere Alternativen benannt, wird der gesamte Ausdruck als inakzeptabel empfunden. Ebenso ergeht es den Beispielen für negiertes *zweifeln* mit *ob*-Satzkomplement (unabhängig von der Anzahl expliziter Alternativen), und jenen, in denen *zweifeln* einen *ob*-Satz, der eine Negation enthält, einbettet.
6. Ganz schlecht werden alle Sätze der Art *glauben – ob* bewertet.

Die obige Rangfolge muss allerdings mit einiger Vorsicht betrachtet werden. Verschiedene Testpersonen beurteilen ein und denselben Satz zum Teil recht unterschiedlich, so dass die Varianzschätzung über die vergebenen Noten große Werte im Verhältnis zu den möglichen numerischen Urteilsdifferenzen annimmt.

Inhaltliche Faktoren haben offenbar Einfluss auf die Akzeptabilitätsurteile. Nicht alle Beispiele derselben Konstruktion erhalten gleich gute bzw. schlechte Noten. Man betrachte insbesondere die *Woods*-Sätze (17f), (17g), (17h), (17i) und (17j), die allesamt recht schlecht abschneiden.

Die Unterscheidung zwischen Nebensätzen, welche explizit mehr als eine Alternative ausdrücken, und solchen, die das nicht tun, ist insofern anfechtbar, als der Skopus des in den „Alternativensätzen“ auftretenden *oder* nicht eindeutig bestimmt ist. In Satz (18e) z. B. kann *oder* engen Skopus haben, *Wein oder Käse* ist eine Einheit, und die expliziten Alternativen *Wein mitbringen* gegenüber *Käse mitbringen* fallen zusammen. Die nicht genannte Alternative ist dann *weder Wein noch Käse mitbringen*. Die Sätze (21a) und (21b) haben sogar drei Lesarten. Ähnlich wie in (18e) kann der Komplementsatz als *dass / ob p₁ oder p₂ oder p₃* oder als *dass / ob p* gelesen werden, wobei $p = p_1 \vee p_2 \vee p_3$. In der dritten Lesart wird *oder* distributiv aufgefasst, die *dass*-Variante von (21a) z. B. würde dann wie (22) interpretiert. Anscheinend haben die Testpersonen diese Lesart nicht gewählt.

- (22) Clarisse zweifelt, dass Ulrich sie wirklich liebt, oder Clarisse zweifelt, dass Ulrich sie nur bewundert, oder Clarisse zweifelt, dass Ulrich sie in Wahrheit nicht ausstehen kann.

Schließlich ist die Art der Präsentation der Testsätze noch immer problematisch.

2.3 *Zweifeln* diachron

In diesem Unterabschnitt wenden wir uns der in Abschnitt 1 aufgetauchten Frage zu, welche Satzkomplemente *zweifeln* in früheren Sprachstufen des Deutschen zuließ, wobei wir uns auf das Frühneuhochdeutsche und das Mittelhochdeutsche beschränken. Als Datenquellen dienen das Deutsche Wörterbuch von Jacob und Wilhelm Grimm, das Bonner Frühneuhochdeutschkorpus sowie die Mittelhochdeutsche Begriffsdatenbank (vgl. Anhang D).

Im Deutschen Wörterbuch finden sich Informationen zu Etymologie, Bedeutung und syntaktischen Eigenschaften des jeweiligen Wortes. Die Bedeutungen, die das Wörterbuch unterscheidet, wie die syntaktischen Angaben, vor allem zu Argumentstruktur und festen Wendungen, sind durch Beispiele aus der deutschsprachigen Literatur seit dem Frühneuhochdeutschen illustriert.

Das Verb *zweifeln* ist von dem Substantiv *Zweifel* abgeleitet, dieses wiederum von dem gleichlautenden, aber seit dem 16. Jahrhundert ausgestorbenen Adjektiv *zweifel*, welches sich aus dem Zahlwort *zwei* und der Schwundstufe der Wurzel *pel-* des Verbs *falten* zusammensetzt. Die Grundbedeutung des Substantivs *Zweifel* beschreibt das Deutsche Wörterbuch unter dem zugehörigen Eintrag so:

„das substantivierte adj. zweifel (vgl. oben zweifel, adj.) bezeichnet den zustand des menschen, gespaltenen, zweigeteilten sinnes zu sein; die grundbedeutung der zweiheit tritt als ungewiszhait angesichts zweier möglichkeiten des entscheidens oder handelns bis heute meist noch deutlich heraus.“

Entsprechend gibt das Deutsche Wörterbuch die Hauptbedeutung des Verbs *zweifeln* an:

„A. von zwiespältiger gemütslage, geistiger verfassung, im urteilen, glauben, hoffen, handeln zwischen zwei möglichkeiten schwanken.“

Eine „Unterbedeutung“, die nicht unter die synchrone wörtliche Bedeutung von *zweifeln*, wie wir sie in Abschnitt 3.2 vorstellen werden, fällt, ist *zweifeln* im Sinne von *zögern*. Auch Belege für *nicht zweifeln* mit erweitertem Infinitiv in der Bedeutung von *nicht zögern* kommen vor. Die „Hauptbedeutung“ von *nicht zweifeln* wird jedoch mit *fest glauben, überzeugt sein, sicher sein* umschrieben.

Bedeutungsunterscheidungen in der Art der Wörterbücher sind mit vielen Problemen behaftet (vgl. Ide and Véronis, 1998). Wir zitieren daher im Folgenden nur noch einige Beispiele für *zweifeln* mit Satzkomplement.

Unter (23) ist ein frühes Beispiel für *zweifeln* mit *ob*-Satz, der explizit zwei Alternativen benennt, angeführt. Ein Beispiel für *zweifeln-ob* ohne explizite Alternativen ist der Satz unter (24). In dem Wörterbucheintrag finden sich keine Vorkommen von negiertem *zweifeln* mit *ob*-Komplement.

(23) diese gaistlich und weltlich zwispeltung machten allen cristenheit zweifeln, ob dem babst zu Rom oder dem andern gehorsamkeit . . . solt beschehen [Nürnbergger Städtechronik, 1488]

(24) dörrffte ich zweiffeln, ob jemals dergleichen bey uns üblich gewesen [Martin Opitz: *Teutsche Poemata*. 5. Neudruck]

Das einzige Beispiel für „positives“ *zweifeln* mit *dass*-Satz bzw. Satzkomplement ohne overtten Komplementierer ist (25).

(25) mir zweifelt, dasz wir so gelangen an den port [Johann Christian Hallmann: *Die göttliche Rache oder der verführte Theodericus veronensis*. Breslau, 1684]

In (26) steht *zweifeln* zwar nicht im Skopus einer Negation, tritt aber in einer rhetorischen Frage auf. Dagegen ist (27) ein Beleg für negiertes *zweifeln* mit *dass*-Satz. Die Sätze (28) und (29) sind Beispiele für Satzkomplemente zu *zweifeln* ohne overtten Komplementierer, wobei die Dativkonstruktion in (28) wie auch in (25) nicht mehr gebräuchlich ist.

(26) und wer wollte zweiffeln, dasz eben darum ihre fluszwässerlein . . . geadelt werden? [Sigmund Birken: *Ostländischer Lorbeerhayn*. Nürnberg, 1657]

- (27) ich zwifel nit, das auch die götter selbs sorg haben [Kaspar Hedio: *Chronica der altenn christlichen Kirchen*. Straßburg, 1530]
- (28) myr zweyfelt auch nicht, es sei e. g. gründlich und ernste meynung [Luther: *Werke*, 12, 64]
- (29) ich zweifle nicht, der neider wird . . . dieses büchlein nicht unangefochten lassen [Joachim Rachel: *Teutsche satirische Gedichte*. Frankfurt, 1664]

Satz (30) wird im Deutschen Wörterbuch als seltenes Beispiel für *zweifeln* mit direktem Objekt angesehen. Ähnlich lässt sich auch das w-Wort-Komplement in (31) deuten, wenn man den *was*-Satz als „freien Relativsatz“ auffasst. Man beachte, dass sowohl in (30) wie in (31) *zweifeln* im Skopus einer Negation steht.

- (30) dasz die welt aus nichts erschaffen, wer nur dieses glauben kann, / wie er billich soll, wird zweifeln nichts, was sonst die schrift zeigt an [Friedrich von Logau: *Sinngedichte*. 242 E]
- (31) ihr zweifelt nicht, was ich von eurem charakter halte [Goethe: *Werke*, I 45, 101]

Das einzige Beispiel für nicht-negiertes *zweifeln* mit w-Wort-Komplement ist unter (32) angegeben.

- (32) und derselben (waren) ein überflusz / also, dasz ich gleich zweiffeln musz, / wo ich erstlich soll fangen an [Marx Mangold: *Markschiff*. O. O., 1596]

Weitere Beispiele für die Verwendung von *zweifeln* liefert das Bonner Frühneuhochdeutschkorpus.²² Die Texte sind so annotiert, dass sich Vorkommen von *zweifeln* auch dann finden, wenn die Schreibung der im Text auftretenden Form von der heute üblichen abweicht.

Die insgesamt 14 einschlägigen Treffer zu *zweifeln* mit Satzkomplement sind im Folgenden nach Konstruktion geordnet angegeben. Für *zweifeln – ob* fanden sich fünf Beispiele, für *zweifeln* mit *dass*-Satz vier, vier weitere für *zweifeln* mit Komplementsatz ohne overtten Komplementierer und eines für *zweifeln – wie*.

Die Sätze (33), (34) und (35) sind Beispiele für die Konstruktion *zweifeln – ob* in der Art, wie wir sie bereits kennen. Nur in Satz (33) wird explizit mehr als eine Alternative angegeben, auch wenn in Satz (35) ebenfalls zwei „Alternativen“, die beiden Glieder der Komparation nämlich, genannt sind.

- (33) Wird ich noch nicht gan ist der sin. das er zweifelet ob er sich durch ir entschuldigen und genuogtuon versoenen woell oder sie gantz nicht mehr suoehen. besunder ir entschlahen. [Hans Neidhart: *Eunuchus des Terenz*. Ulm, 1486, S. 19 (Kommentar), ZZ. 5-8]
- (34) Wie leicht ist er entzünd in der liebi nun von sehen. und het villeicht zweifelt ob es war waere. darumb spricht er freilich oder werlich. [Hans Neidhart: *Eunuchus des Terenz*. Ulm, 1486, S. 61 (Kommentar) ZZ. 18-20]
- (35) Hier zweifle ich nicht ohne Ursach/ ob unser Hochseeliger mehr ein Muster und Abbildung des Feldes/ als das Feld seiner gewesen sei. [Georg Göz: *Leich-Abdankungen*. Jena, 1664, S. 291, ZZ. 1-5]

²² Bei diesem Korpus handelt es sich um eine Sammlung von gleich umfangreichen Auswahltexten aus 40 verschiedenen Quellen, die nach Zeitabschnitten (1350 bis 1400, 1450 bis 1500, 1550 bis 1600 und 1650 bis 1700) und Sprachlandschaften geordnet sind.

Interessanter sind die Beispiele (36) und (37), weil dort *zweifeln* gemeinsam mit Negationselementen auftritt. In (36) sind zwei *ob*-Sätze als Glieder eines Vergleichs von *zweifeln* abhängig. Dass Augustinus gelehrt hat und dass er wider die Donatisten geschrieben hat, geht aus dem Kontext hervor. Die Aussage des Satzes besteht jedoch darin, dass hinsichtlich der einen wie der anderen Frage, ob nämlich Augustinus gelehrt und ob er wider die Donatisten geschrieben hat, gleichermaßen Klarheit herrscht.

Satz (37) ist nur scheinbar ein Beleg für negiertes *zweifeln* mit *ob*-Komplementsatz. Zwar steht *zweifeln* im Skopus verneinter Modalverben und bettet einen *ob*-Satz ein, der überdies explizit zwei Alternativen benennt. Nur bezieht sich das Subjekt des *ob*-Satzes nicht auf den Hermaphroditen Daniel Burckhamer sondern auf die fabelhafte Fledermaus, und für diese stellt sich die Zugehörigkeitsfrage, in ihrem Fall nicht „Mann oder Frau?“, sondern „Maus oder Vogel?“, in der Tat. Folglich ist (37) ein Beispiel für (nicht-negiertes) *zweifeln* – *ob* mit expliziten Alternativen.

- (36) Ob Augustinus also gelehrt hat/ kan eben so wenig gezweifelt werden/ als ob er wider die Donatisten/ geschrieben hat/ daß der Gegenbedencker sagt/ “Wanns aber schon Augustinus gesagt haette/ so waere es doch eines Menschen/ vnnd nit Gottes Wort.” [Johann Rosenthal: *Wiederholung*. Köln, 1653, S. 13, ZZ. 9-12]
- (37) Er [der Hermaphrodit Daniel Burckhamer von Buchheim] hat aber nicht doerffen noch koennen zweiffeln/ wie dort in der fabel die Fledermauß/ ob sie unter die Maeuse oder die Voegel zu rechnen: Denn er empfunde ja an seinem Leibe wol/ zu welchem Geschlecht er gehoerete/ un- inclinirte. [Hiob Ludolf: *Schaubühne*. Frankfurt a. M., 1699, S. 51/52B, ZZ. 55-60]

Unter (38) sind die Belege für *zweifeln* mit *dass*-Satz, unter (39) diejenigen für *zweifeln* mit Satzkomplement ohne overtten Komplementierer aufgeführt. Bemerkenswert ist, dass in allen diesen Beispielen *zweifeln* im Skopus einer Negation vorkommt, d. h. es handelt sich um Vorkommen der Art *nicht zweifeln* – *dass* bzw. *nicht zweifeln* – \emptyset mit der zugehörigen Interpretation *überzeugt sein* – *dass*. Wenn *zweifeln* – *ob* die ältere Verwendung ist, könnte die Konstruktion *zweifeln* mit *dass*-Satz zuerst auf negiertes *zweifeln* beschränkt gewesen sein. Die zugehörige Bedeutung *überzeugt sein* – *dass* für *nicht zweifeln* – *dass* werden wir in Abschnitt 3.2 erhalten.

- (38) a. Diese meinung des Herren Verheissung/ hat der H. Petrus nach dieser beschener erklerung bald gefast vnd eingnomen/ hat seine vernufft gefangen ergeben/ vnder die gehorsame Christi/ hat an seiner almechtigkeit/ vnd das er diß vnnd alles vermoecht/ vnd was er Verheissen hat/ Leisten wurde/ vberal nit gezweifelt/ vnd ... [Johann Gropper: *Gegenwärtigkeit*. Köln, 1556, Blatt 15 recto, ZZ. 1-6]
- b. Wie nun der bruoder sich nit mee wolt aeffen lassen vnd jr narr syn warend die Münch in grossen aengsten/ stiessend die koepff zuosamen/ vnd nach gehebttem radt bekanntend sy dem bruoder/ es waere nit on/ sy hettind etliche falsche erschynungen gemacht/ keiner andere- meinung/ dann daß sy jn in sinem andacht behieltind/ doch waer die hauptsach an jr selber gerecht/ soelte nit zwyflen/ dann daß er die wunden von Gott hette. [Ludwig Lavater: *Gespenster*. Zürich, 1578, Blatt 27 verso, ZZ. 14-23]
- c. Jedoch ist nicht zu zweiffen/ daß er ueber die erzehlte/ noch vil andere ansehnliche vnd grosse Miracula, wie auch herrliche vnd gantz troestliche Werck gewuercket habe/ welche eintweders nicht angezeigt/ oder von vnsern Vorfahren aus Vnachtsamkeit nicht ordentlich Verzeichnet vnd auffgemerckt/ oder deren Schrifften in so langer Zeit verlohren worden ; ... [Marcus Eschenloher: *Augsburgischer Arzt*. Augsburg, 1678, S. 60, ZZ. 7-14]
- d. Nun aber beeden Theilen genug zu thun/ will ich nur etliche/ vnd zwar die vornehmere Miracula, welche sich in ietztlaufendem Sibenzehen hundert Jaehrigem Weltgang

begeben/ anzeigen ; beynebens nicht zweiffend/ daß derer vil mehrer seynd/ [Marcus Eschenloher: *Augsburgischer Arzt*. Augsburg, 1678, S. 60, ZZ. 16-21]

- (39) a. derhalben auf seinen befelch sollen sy herzuogehen dieweil dasselbig wort/ sein befelch vn- stiftung noch wehret/ vnd bleiben soll biß an das end der welt: auch nit zweifeln/ sy werden mit dem warhafftigen leyb Christi gespeyset/ vnnd mit seinem Bluot getrenckt werden/ wie er es einmal verhayssen vnd versprochen hat. [Jacob Andreae: *Bericht Nachtmahl*. Augsburg, 1557, Blatt 24 verso, ZZ. 8-17]
- b. Es zweifelt mir auch nicht/ es seyen der Christlichen Fürste- nicht in geringer an- zal/ die nach jrem hoechsten vermoegen darzuo rhaten vnd helffen wurden. [Jacob Andreae: *Bericht Nachtmahl*. Augsburg, 1557, Blatt 43 recto, ZZ. 3-7]
- c. Du bist ein betrieger, wie vorgesagt, sprach der Pater; zweifelle nicht, es werden sich hie viel fromme Seelen an deinen Reden vnd Thun spiegeln, vnd sich vor dir durch beystand Gottes wol zu hüten wissen. [Hans Michael Moscherosch: *Gesichte*. Straßburg, 1650, S. 29, ZZ. 8-11]
- d. Und ich zweifele nicht/ es werde bald Gelegenheit geben/ die aufrichtige Freundschaft auf die Probe zu setzen. [Christian Weise: *Jugendlust*. Leipzig, 1684, S. 95, ZZ. 9-10]

Das einzige Vorkommen von *zweifeln* mit w-Wort-Komplement in dem Bonner Frühneuhochdeutschkorpus ist Satz (40). Der Kontext bietet keine Alternativeninterpretation des *wie*-Satzes an. Man beachte allerdings die Analogie zwischen *zweifflen/ wie* und *vermelden/ wie*.

- (40) Weil aber vielleicht jemandis moechte zweifflen/ wie Guiana so ein volckreich Keyserthumb sey worden/ vnnd mit so viel Staetten/ Doerffern/ Kirchen/ vnnd Schaetzen gezieret/ habe ich fuer gut angesehen/ zu vermelden/ wie der jetzige regierende Keyser von den Fuersten auß Peru seine Ankunfft hat/ ... [Walter Raleigh: *Amerika*. Frankfurt a. M., 1599, S. 5, ZZ. 33-36]

Belege für *zweifeln* im Mittelhochdeutschen findet man in der Mittelhochdeutschen Begriffsdatenbank (MHDBDB), wenn man nach *zwîveln* sucht. Die Texte der Datenbank sind lemmatisiert, so dass die Suche nach *zwîveln* flektierte Formen und orthographische Varianten einschließt. Die Lemmatisierung der Texte war zum Zeitpunkt der Suchanfrage allerdings noch nicht abgeschlossen.²³

Die Suche nach einer flektierten Form von *zwîveln* ergab 77 Treffer, unter ihnen aber nur acht Beispiele für *zwîveln* mit Satzkomplement, wobei die Vorkommen der Konstruktionen *zwîveln – daran ob* und *zwîveln – daran daz* nicht mitgezählt wurden.

Unter (41) ist einer der beiden einschlägigen Treffer für *zwîveln – ob*, wenn man (44) nicht dazu rechnet, angegeben. In beiden Fällen sind die jeweils genau zwei Alternativen explizit genannt.

Unter (42) ist einer der drei Treffer zu *zwîveln – daz* aufgeführt, (43) ist der einzige Beleg für einen Komplementsatz zu *zwîveln* ohne overtten Komplementierer. Lediglich in (43) tritt *zwîveln* im Skopus einer Negation auf, was angesichts der Ergebnisse für das Frühneuhochdeutsche überrascht.

Der Satz unter (44) ist ein hübsches Beispiel – in dieser Form allerdings auch das einzige – für ein w-Wort-Komplement, das als genau zwei Alternativen ausdrückend interpretiert werden soll. Die zwei *ob*-Sätze explizieren die beiden Handlungsmöglichkeiten, unter denen der König von Persien die „beste“ wählen muss.

²³ Anfang 2003 enthielt die MHDBDB 120 mittelhochdeutsche literarische Texte mit insgesamt ca. 4,7 Mio. Textwörtern.

- (41) dô ich von im diu maere las, / daz in nû der genomen was, / dô vuocte in soliches zwîvels wanc, / daz ir zwîvellicher gedanc / vil sêre zwîveln began, / ob si von dem gesaeze dan / von dannen kêren wolten / oder ob si fürbaz solten / mit ir her beliben dâ. [Konrad von Würzburg (13. Jh.): *Der Trojanische Krieg*. ZZ. 44139–44147]
- (42) ez zwivelte sin taufaere / daz in sin trost verbaere, / da er was da zu helle, / und Adam, sin geselle, / der mit im des zwîvels jach, / biz daz er die hant ersach / die in worhte uz nihte. [Ulrich von Türheim (frühes 13. Jh.): *Rennewart*. ZZ. 12215–12221]
- (43) Karl ein wîle entwalte / dô sprach aber der alte: / nû zwîvelt herre keiser niht, / swaz ir gebietet, daz geschiht. [Der Stricker (frühes 13. Jh.): *Karl der Grosse*. ZZ. 1307–1310]
- (44) nû was gewissiu botschaft komn / dem kûnege von Persiâ / wiez ergangen was aldâ / und daz Alexander dô / waer komen von Egiptô, / und in Africâ nû laege / und hôhes muotes phlaege / nâch kûneclicher lêre. / dô zwîvelt er vil sêre / waz im nû waer daz beste, / ob er der werden geste / in Mesôpotâmje bite / und in Bâbilônje strite, / odr ob er solde entwîchen / gen sînen vesten rîchen, / die er hâte in Persiâ. [Rudolf von Ems (frühes 13. Jh.): *Alexander*. ZZ. 10716–10731]

Beide Konstruktionen *zweifeln-ob* und *zweifeln-dass* sind anscheinend spätestens seit dem Mittelhochdeutschen nebeneinander gebräuchlich, auch wenn die *ob*-Konstruktion – vor allem mit zwei explizit benannten Alternativen – besser zur Etymologie von *zweifeln* passt. Immerhin scheint auch in früheren Sprachstufen des Deutschen nach negiertem Matrixverb *zweifeln* das *ob*-Komplement im Allgemeinen unzulässig gewesen zu sein.

Die frühneu- und mittelhochdeutschen Sprachdaten stützen also die Beobachtungen, die wir in den Abschnitten 2.1 und 2.2 zum synchronen Gebrauch von *zweifeln* gewonnen haben. Die in Abschnitt 1 erwähnte Vermutung Eisenbergs, dass *zweifeln-ob* die gegenüber der *dass*-Konstruktion ältere Verwendung sei, konnten wir an Hand des Mittelhochdeutschen allerdings nicht bestätigen.

2.4 Zweifeln in anderen Sprachen und *bezweifeln*

In diesem Unterabschnitt werden die dem Deutschen *zweifeln* entsprechenden Verben *doubt* des Englischen und *dubitare* des Italienischen vorgestellt. Im Russischen spielt *somnevat'sja* (*сомневаться*) eine der Situation im Deutschen vergleichbare Rolle, was die Bedeutung und die möglichen Satzkomplemente des Verbs betrifft. Auf das deutsche *bezweifeln* gehe ich im Zusammenhang mit englisch *doubt* ein.

Das englische Verb des Zweifels *doubt* erlaubt als Komplemente sowohl *that*- als auch *whether*-Sätze, was den beiden Möglichkeiten *dass*- bzw. *ob*-Komplement im Deutschen entspricht. Ähnlich ist auch, dass *whether*-Komplemente anscheinend unzulässig sind, wenn das einbettende Verb *doubt* im Skopus einer Negation auftritt. Anders als im Deutschen, wo es außer *ob* keinen zweiten Komplementierer zur Einleitung indirekter Entscheidungsfragen gibt, erscheinen im Englischen an Stelle von *whether*-Komplementsätzen durch *if* eingeleitete Nebensätze.²⁴

Diese Daten liefert beispielsweise das Collins Dictionary of English in seiner 21st Century Edition unter dem Eintrag *doubt* als Information zum Sprachgebrauch, wenn *doubt* ein Satzkomplement regiert:

²⁴ Zwischen *whether*- und *if*-Komplementsätzen bestehen systematische Unterschiede in der Verteilung. Nach Verben wie *admit*, *say*, *hear*, die als Ergänzungen sowohl Frage- wie auch Deklarativsätze erlauben, sind *whether*-Komplemente immer möglich, während *if*-Sätze nur in Umgebungen zulässig sind, die auch polaritätssensitive Elemente wie *any* oder *either* lizensieren. Eine Erklärung liefern Adger und Quer (Adger and Quer, 2001).

“Usage: Where a clause follows *doubt* in a positive sentence, it was formerly considered correct to use *whether*: (*I doubt whether he will come*), but now *if* and *that* are also acceptable. In negative statements, *doubt* is followed by *that*: *I do not doubt that he is telling the truth*. In such sentences, *but* (*I do not doubt but that he is telling the truth*) is redundant.”²⁵

Das Collins Dictionary ist als Informationsquelle zum Sprachgebrauch englischer Wörter insofern geeignet, als sich die dort vorhandenen Angaben auf die Analyse eines umfangreichen Korpus der synchronen englischen Sprache, der Bank of English, stützen.²⁶

Auf den im Zitat angesprochenen Gebrauch der Konjunktion *but* werde ich nicht eingehen. Im Unterschied zu *zweifeln* ist *doubt* ein transitives Verb (wie *bezweifeln*), Sätze wie (45), aber auch die Relativkonstruktion in (46) sind also akzeptabel.

(45) Why do you doubt it?

(46) God have mercy on the man who doubts what he is sure of.

Betrachtet man nur diejenigen Fälle, in denen *doubt* Nebensätze einbettet, so bleibt die Besonderheit des Englischen, dass es zwei Konjunktionen zur Einleitung von Interrogativkonstruktionen, die indirekte Entscheidungsfragen ausdrücken, gibt, nämlich *whether* und *if*. Bei den *if*-Nebensätzen kann es sich allerdings auch um die Protasis einer hypothetischen Periode handeln.

Zu dem gleichen Ergebnis wie dem im Collins Dictionary angegebenen führt eine Analyse des British National Corpus (BNC)²⁷, wenn man nach Vorkommen von *doubt* als Verb sucht. Mit Hilfe des Abfrageprogramms SARAH und unter Benutzung der Part-of-Speech-Tags²⁸ fanden sich im BNC gut 900 einschlägige Vorkommen von *doubt* mit Satzkomplement, davon ca. 140 mit *if*-Komplement und gut 200 mit *whether*-Komplement.

Hinsichtlich der Negation des einbettenden *doubt* verhalten sich *if*- und *whether*-Komplement gleich, d. h. es fand sich kein einziges Beispiel für negiertes verbales *doubt* mit *if*- oder *whether*-Satzkomplement. Befindet sich *doubt* im Skopus eines Modalverbs (hier *may*, *can*, *must*, *need*), scheint der *whether*- dem *if*-Nebensatz vorgezogen zu werden (vier gegenüber 43 Treffern).

In der Regel drücken weder der *whether*-Nebensatz noch der *if*-Nebensatz explizit Alternativen aus. Das einzige Beispiel, das sich dazu im BNC findet, scheint der unter (47) wiedergegebene Satz zu sein.

(47) To Donne’s celebrated image of the compasses it may be doubted whether absurdity or ingenuity has the better claim.

Ob Alternativen explizit von *doubt* als *if*-Nebensatz eingebettet werden können, lässt sich auf Grund der Daten nicht entscheiden.

Man betrachte in diesem Zusammenhang noch das deutsche Verb *bezweifeln*, welches neben nominalen auch *dass*-Komplemente zulässt wie in den Beispielen (48) bzw. (49).

²⁵ Kursivschreibung wie im Original.

²⁶ Die Bank of English ist ein Korpus variabler Größe, welches aus einem umfangreicheren opportunistisch zusammengestellten Monitorkorpus nach bestimmten Repräsentativitätskriterien gespeist wird. Zur Zeit der Erstellung der 21st Century Edition bzw. fünften Auflage des Collins COBUILD Dictionary hatte die Bank of English eine Größe von ca. 323 Mio. Wörtern.

²⁷ Das BNC ist als Referenzkorpus für das synchrone (hauptsächlich britische) Englisch angelegt. Es enthält ca. 100 Mio. Wörter, davon 10% transkribierte gesprochene Sprache (ca. 900 Aufzeichnungen). Die Textproben von nicht mehr als 45000 Wörtern Länge stammen aus den 1960er bis 1980er Jahren und aus über 3000 unterschiedlichen Quellen verschiedenster Art. Ziel war ein Korpus, das den „allgemeinen“ Sprachgebrauch des Englischen regional und hinsichtlich bestimmter Merkmale der Sprachproduzenten ausgewogen widerspiegeln würde.

²⁸ Die Annotation des BNC wurde weitgehend automatisch mit dem Programm CLAWS durchgeführt.

- (48) Und sie bezweifelt – sehr leichtfertig – den Wert von Wahlen überhaupt.
[Züricher Tagesanzeiger, 7.9.1996]
- (49) Auch bezweifeln sie, daß die Straße tatsächlich die Ortsdurchfahrt von Verkehr entlastet.
[Frankfurter Rundschau, 28.1.1997]

Anscheinend erlaubt auch *bezweifeln ob*-Sätze wie unter (50) oder (51) als Komplemente. Entsprechende Beispiele finden sich in den in Abschnitt 2.1 erwähnten IDS-Korpora. Drückt der *ob*-Satz jedoch explizit zwei oder mehr Alternativen aus, scheint dessen Kombination mit *bezweifeln* weniger akzeptabel als mit *zweifeln* zu sein, wie die Beispiele (52) und (53) im Vergleich zu den *ob*-Versionen der Sätze (21a) und (17b) nahe legen.

- (50) Ob die Mutter geeignet ist, die Kinder zu erziehen, bezweifelt das Gericht allerdings auch.
[Frankfurter Rundschau, 4.3.1997]
- (51) Analysten bezweifeln, ob sich SNI damit im Alleingang als Global player etablieren kann.
[COMPUTER ZEITUNG, 20.11.1997]
- (52) # Maria bezweifelt, ob sie Wein oder Käse zum Abendessen mitbringen soll.
- (53) # Clarisse bezweifelt, ob Ulrich sie wirklich liebt oder nur bewundert oder sie in Wahrheit nicht ausstehen kann.

Was *zweifeln* betrifft, ist die Situation im Italienischen der des Deutschen insofern vergleichbar, als das italienische Verb *dubitare* bestimmte Satz- wie auch von *di* regierte Präpositionalkomplemente einzubetten erlaubt, nicht aber nominale Komplemente. So sind die Sätze (54) und (55) grammatisch und in geeignetem Kontext akzeptabel.

- (54) Maria dubita che Paolo abbia attraversato le Alpi a piedi.
- (55) Tommaso dubita della buona fede di Maria.

Man beachte, dass der Konjunktiv bzw. Subjunktiv im *che*-Nebensatz in (54) obligatorisch ist. Folglich ist (56) ungrammatisch.

- (56) * Maria dubita che Paolo ha attraversato le Alpi a piedi.

Zu beachten ist überdies, dass bei Subjektsgleichheit zwischen dem von *dubitare* eingebetteten und dem übergeordneten Satz an die Stelle des *che*-Nebensatzes eine Infinitivkonstruktion wie in (57) tritt. In Satz (58) kann *sia geniale* sich nicht auf das Denotat von *Clarissa* beziehen.

- (57) Clarissa dubita di essere geniale.
- (58) Clarissa dubita che sia geniale.

Das Verhalten von *dubitare* mit *che*-Komplementsatz bzw. *di* plus Infinitiv ist demjenigen, welches wir für *zweifeln-dass* beobachtet haben, ähnlich. So sind die Sätze (59) bis (61) wie die negierten Entsprechungen der Sätze (54) und (57), hier als Beispiele (62) und (63) aufgeführt, allesamt grammatisch und in geeignetem Kontext akzeptabel.

- (59) Woods dubita che un uomo come Fossati possieda questa “dimensione cosmica”.
- (60) Woods dubita molto che un uomo come Fossati possieda questa “dimensione cosmica”.
- (61) Woods non dubita che un uomo come Fossati possieda questa “dimensione cosmica”.

(62) Maria non dubita che Paolo abbia attraversato le Alpi a piedi.

(63) Clarissa non dubita di essere geniale.

Um Auskunft über die Interpretation dieser Sätze zu erhalten, bat ich vier kompetente Sprecher des Italienischen²⁹ um Erläuterungen. Erwartungsgemäß lässt sich *dubitare – che* umschreiben mit *nicht glauben – dass*, während *non dubitare – che* dem deutschen *überzeugt sein – dass* entspricht.

Interessanter ist wieder die Frage, inwieweit Interrogativkonstruktionen oder Konstruktionen zum Ausdruck von Alternativen als Komplement von *dubitare* zulässig sind. Die Woods-Sätze unter (64) sollten grammatisch und akzeptabel sein, ebenso die Beispiele (65) und (66). Klar wohlgeformt sind auch Sätze wie (67) oder (68).

- (64) a. Woods dubita se un uomo come Fossati possiede questa “dimensione cosmica”.
 b. Woods dubita se un uomo come Fossati possiede o meno questa “dimensione cosmica”.
 c. Woods dubita se un uomo come Fossati possiede questa “dimensione cosmica” o meno.

(65) Si dubita se sia onesto o turpe a farsi.

(66) ... erano solo semplici spettatori, e dubito se all’ora di pranzo e di cena siano stati ammessi a sedere alla stessa tavola o in qualche sala adiacente.

(67) Maria dubita se accettare o meno l’invito di Paolo.

(68) Maria dubita se portare del vino o del formaggio per la cena.

Der Subjunktiv ist auch in den *se*-Komplementsätzen notwendig, ansonsten würde *se* als konditionale Konjunktion aufgefasst.

Bei (67) und (68) tritt wegen Subjektsgleichheit in der *se*-Phrase das Verb im Infinitiv auf, und die Sätze werden dahingehend interpretiert, dass Maria unentschieden ist, welche der jeweils zwei Alternativen sie wählen soll. Die unter (69) angegebene *se*-Version von Satz (57) ist unsinnig.

(69) # Clarissa dubita se essere geniale o meno.

Es gibt allerdings den Fall, dass bei Subjektsgleichheit zwischen Haupt- und *se*-Satz in letzterem ein finites Verb als Teil des Prädikats auftritt, und zwar in Sätzen wie (70b). Während (70a) heißt, dass Zeno in seiner Brautwahl zwischen den drei Schwestern Ada, Alberta und Augusta schwankt, bedeutet (70b), dass Zeno sich im Zweifel darüber befindet, welche der drei Frauen er zu heiraten verpflichtet sei.

- (70) a. Zeno dubita se sposare o Ada o Alberta o Augusta.
 b. Zeno dubita se debba sposare o Ada o Alberta o Augusta.

Klar inakzeptabel sind die Sätze unter (71) und (72), insbesondere kann *dubitare* im Skopus einer Negation keinen *se*-Nebensatz einbetten.

- (71) a. # Woods non dubita se un uomo come Fossati possiede questa “dimensione cosmica”.
 b. # Woods non dubita se un uomo come Fossati possiede o meno questa “dimensione cosmica”.

²⁹ Zwei Frauen und zwei Männer, unter ihnen kein(e) Linguist(in).

- c. # Woods non dubita se un uomo come Fossati possiede questa “dimensione cosmica” o meno.

(72) # Maria non dubita se accettare o meno l’invito di Paolo.

Ebenfalls unzulässig sind Interrogativkonstruktionen, die Konstituentenfragen entsprechen, wie in (73) oder (74).

(73) * Maria dubita chi abbia attraversato le Alpi a piedi.

(74) * Maria dubita quando Paolo abbia attraversato le Alpi a piedi.

Weniger klar ist, ob ein Satz wie (75) akzeptabel ist. Jedenfalls ist (76) inakzeptabel, es sei denn, aus dem Kontext geht hervor, dass *chi* nur auf zwei (oder einige bestimmte) Individuen referieren kann.

(75) ? Paolo dubita chi dei due candidati sia più idoneo come sindaco.

(76) ?? Paolo dubita chi governerà Parigi nel futuro.

Bemerkenswert ist noch, dass Sätze, in denen *dubitare* ein *se*-Komplement regiert und die zweite Alternative durch *o meno* oder *o no* ausgedrückt wird, als weniger akzeptabel empfunden werden, wenn dieser Zusatz entfällt. Das passt gut zu der Vermutung, dass *dubitare*, ähnlich wie *zweifeln*, Satzkomplemente einzubetten erlaubt, die Mengen von Alternativen denotieren. Satzkomplemente, die nicht in dieser Art interpretiert werden können, sind für *dubitare* unzulässig.

Im Russischen spielt das intransitive Verb *somnevat’sja* eine ganz ähnliche Rolle wie *zweifeln* im Deutschen. Dabei entsprechen *somnevat’sja – čto* bzw. *somnevat’sja – čto by* der Konstruktion *zweifeln – dass*, während *somnevat’sja – li* der Konstruktion *zweifeln – ob* entspricht. Das *li*-Komplement tritt nur auf, wenn *somnevat’sja* sich nicht im Skopus einer Negation befindet.

Was die Etymologie der Verben des Zweifels betrifft, ist die Situation im Italienischen derjenigen im Deutschen wieder ähnlich. Das italienische *dubitare* stammt vom lateinischen Verb *dubitare*, welches seinerseits mit dem Zahlwort *duo* (zwei) verwandt ist.³⁰ Mittelbar leitet sich so auch das englische *doubt* von dem Wort für die Zahl Zwei ab.

Im Russischen allerdings scheint eine vergleichbare Verwandtschaft zwischen dem Verb des Zweifels *somnevat’sja* und einem Zahlwort nicht zu bestehen.

Die Verben des Zweifels im Deutschen, Englischen, Italienischen und Russischen verhalten sich hinsichtlich der Wahl ihrer Satzkomplemente ähnlich. Wichtige Unterschiede bestehen in der Zulässigkeit nominaler Komplemente (*doubt* ist transitiv wie *bezweifeln*, *zweifeln*, *dubitare* und *somnevat’sja* sind intransitiv), dem Wechsel zwischen finiten und infiniten Komplementsätzen (man vergleiche insbesondere Italienisch und Deutsch) und in der Moduswahl im abhängigen Satz.

Wie sich Ausdrücke des Zweifels in anderen Sprachen – insbesondere in außereuropäischen – verhalten, muss hier offen bleiben. Natürlich sind Verben vorstellbar, deren Bedeutung der von *zweifeln* entspricht und die nur Deklarativsätze als Komplemente zulassen.³¹ Das intransitive Verb *lepakpek* (לפקפק) des Hebräischen scheint ein Beispiel hierfür zu sein. Jedenfalls ist die merkwürdige Distribution der Satzkomplemente von *zweifeln* keine Eigenart des Deutschen.

³⁰ Man vergleiche auch *duplex* (doppelt) aus *duo* und *plicare* (falten).

³¹ Vgl. Abschnitt 3.3.

3 Erklärungsversuch

In diesem Abschnitt versuche ich, die offenbar unterschiedliche Akzeptabilität und die unterschiedlichen Interpretationen der verschiedenen Konstruktionen von *zweifeln* mit Nebensatzkomplement zu erklären, insbesondere den Unterschied zwischen *zweifeln* mit *dass*- und *zweifeln* mit *ob*-Komplement.

3.1 Bedeutungsumschreibung

Alle in Abschnitt 2 aufgetretenen methodischen Zweifel über Bord werfend, erhalten wir aus den dort vorgestellten Daten folgendes Bild von der Satzkomplementwahl des Verbs *zweifeln*. Konstruktionen der Art (K1) bis (K4) sind sprachlich akzeptabel und grammatisch.

- (K1) Paul zweifelt, dass p .
- (K2) Paul zweifelt, ob p_1 oder $p_2 \dots$ oder p_n .
- (K3) Paul zweifelt, ob p .
- (K4) Paul zweifelt nicht, dass p .

Dabei ist Paul ein Eigenname, p, p_1, \dots, p_n sind Propositionen, n ist eine natürliche Zahl mit $n \geq 2$.³² Konstruktionen wie (K5) oder (K6) führen im Allgemeinen zu sprachlich inakzeptablen Äußerungen.

- (K5) # Paul zweifelt nicht, ob p_1 oder $p_2 \dots$ oder p_n .
- (K6) # Paul zweifelt nicht, ob p .

Die Bedeutungen der Konstruktionen (K1) bis (K4) lassen sich durch (M1) bis (M4) grob umschreiben.

- (M1) Paul glaubt nicht, dass p .
- (M2) Paul ist unentschieden / unsicher / fragt sich, ob p_1 oder $p_2 \dots$ oder p_n .
- (M3) Paul ist unentschieden / unsicher, ob p oder $\neg p$, glaubt aber eher, dass $\neg p$.
- (M4) Paul ist überzeugt, dass p .

Wird eine Äußerung der Art (K5) oder (K6) akzeptiert, so erhält sie eine Interpretation gemäß (M5) bzw. (M6).

- (M5) [Falls akzeptiert:] Paul besitzt Überzeugung bzgl. der Frage, ob p_1 oder $p_2 \dots$ oder p_n .
- (M6) [Falls akzeptiert:] Paul besitzt Überzeugung bzgl. der Frage, ob p oder $\neg p$.

Die Akzeptabilitätsurteile und Interpretationen sollen aus der wörtlichen Bedeutung von *zweifeln* mittels pragmatischer Prinzipien hergeleitet werden. Um insbesondere die übliche Interpretation der Konstruktion (K1) zu erhalten, verwenden wir eine Art skalarer Implikaturen. Als Beispiel diene das Verb *vermuten*. Der Ausdruck *Paul vermutet, dass p* bedeutet wörtlich, dass Paul die Proposition p für wahrscheinlicher hält als ihre Negation. Wäre Paul vom Zutreffen von p überzeugt, so würde dieser Sachverhalt genauer durch *Paul ist überzeugt, dass p*

³² In diesem Unterabschnitt unterscheiden wir nicht zwischen der sprachlichen Realisierung einer Proposition und der Proposition selbst.

oder – mit zusätzlicher Präsupposition – durch *Paul weiß (sicher), dass p* beschrieben. Folglich impliziert *Paul vermutet, dass p*, dass Paul nicht überzeugt ist und nicht sicher weiß, dass *p*.

Die wörtliche Bedeutung von *zweifeln* wird hier zunächst nur umschrieben, in Abschnitt 3.2 werden wir sehen, wie sich diese Umschreibung im Rahmen einer üblichen Mögliche-Welten-Semantik formalisieren lässt.

Wir fassen *zweifeln* – ähnlich wie *glauben* – als Verb der propositionalen Einstellung auf. Durch das Nebensatzkomplement werden eine oder mehrere Propositionen ausgedrückt, zu denen das „Subjekt“ (der Referent des externen Arguments) zu *zweifeln* eine doxastische Einstellung besitzt. Eine solche Einstellung bzgl. einer Proposition *p* identifizieren wir mit dem „Grad an Überzeugtheit“, welcher dem zweifelnden Subjekt hinsichtlich *p* zugeschrieben wird.

Die wörtliche Bedeutung von *zweifeln* plus Nebensatzkomplement besteht nun darin auszudrücken, dass das Subjekt zu *zweifeln* von keiner der durch den eingebetteten Satz benannten Propositionen (hundertprozentig) überzeugt ist. Betrachten wir die wörtlichen Bedeutungen der Konstruktionen (K1) bis (K4), die sich daraus ergeben.

Eine Äußerung der Art (K1) *Paul zweifelt, dass p* bedeutet wörtlich, dass es nicht der Fall ist, dass Paul überzeugt ist, dass *p*. Die wörtliche Bedeutung von (K1) wird, wenn man *glauben* und *überzeugt sein* als semantisch äquivalent ansieht, durch die wörtliche Bedeutung von (M1) wiedergegeben.³³ Das ist nicht verwunderlich, wenn man bedenkt, dass *zweifeln* sogar als Negation von *glauben* aufgefasst wird, so z. B. von Eisenberg (s. Eisenberg, 1999: 216).

Die üblicherweise durch (M1) ausgedrückte Bedeutung erhält man aus der angegebenen wörtlichen Bedeutung von (K1), indem man *zweifeln* mit der Ausdrucksalternative *vermuten* vergleicht. Wollte man mit *Paul zweifelt, dass p* sagen, dass Paul zwar vom Zutreffen von *p* nicht überzeugt ist, die Proposition *p* jedoch für wahrscheinlicher hält als deren Negation $\neg p$, so wäre die Ausdrucksalternative *Paul vermutet, dass p* geeigneter, diesen Sachverhalt auszudrücken. Die Wahl von *zweifeln* an Stelle von *vermuten* führt also zu der Implikatur, dass es nicht der Fall ist, dass Paul vermutet, dass *p*. Als Pauls Einstellung zu *p* bleibt dann die gewöhnliche Bedeutung von (M1).

Bei dieser Argumentation ist allerdings zu beachten, dass *Paul vermutet, dass p* den Fall *Paul ist überzeugt, dass p* in der wörtlichen Bedeutung nicht ausschließt. Wie wir oben gesehen haben, impliziert eine Äußerung von *Paul vermutet, dass p* jedoch, dass Paul nicht überzeugt ist, dass *p*.

Eine Äußerung der Art (K2) *Paul zweifelt, ob p_1 oder p_2 ... oder p_n* bedeutet wörtlich, dass Paul von keiner der Propositionen p_1, \dots, p_n überzeugt ist. Aus den Erläuterungen der Teilnehmer der ersten Sprecherbefragung (s. Abschnitt 2.2) folgern wir, dass die durch den *ob*-Satz ausgedrückten Propositionen als Alternativen aufgefasst werden, d. h. insbesondere, dass sie einander – zumindest aus der Sicht des Subjekts zu *zweifeln* – paarweise ausschließen. Einschlägig für den Fall $n = 2$, also von genau zwei Propositionen, ist dabei Satz (18e), der dahin gehend aufgefasst wurde, dass Maria entweder Wein oder Käse zum Abendessen mitbringt, gewiss eins von beiden und sicher nicht Wein und Käse.³⁴ Diese Beobachtung verallgemeinern wir und fordern, dass von den Propositionen p_1, \dots, p_n präsupponiert wird, dass sie eine subjektive Alternativenmenge bilden, d. h. die Konjunktion von zwei verschiedenen dieser Propositionen wird vom Subjekt zu *zweifeln* als unmöglich angesehen, die Disjunktion über alle n Propositionen dagegen als gewiss.

Im Fall $n \geq 3$, wenn also der *ob*-Satz von (K2) mehr als zwei Alternativen ausdrückt, könnte Paul sogar alle bis auf zwei Alternativen für unmöglich halten. Wenn der Kontext keine bestimmten Präferenzen nahe legt, darf man aus Symmetriegründen wohl annehmen, dass Paul die zweifelhaften Alternativen für in etwa gleich wahrscheinlich hält.

³³ Wir vernachlässigen hier den Gebrauch von *glauben* im Sinne von *vermuten*.

³⁴ Man betrachte in diesem Zusammenhang auch die *ob*-Varianten der Sätze (21a) und (21b) sowie die Beispiele (18a), (18c) und (18d), in denen *zweifeln* einen *w*-Wort-Satz als Komplement besitzt und die auch in der zweiten Sprecherbefragung gute Akzeptabilitätsnoten erhielten.

Ist $n = 2$, so hält Paul beide Alternativen p_1 und p_2 für möglich, ihre Disjunktion für gewiss, ihre Konjunktion für unmöglich. Gibt es weiter keine Hinweise zu Pauls Einstellung hinsichtlich jener Propositionen, so kann man wieder annehmen, dass Paul p_1 und p_2 für ungefähr gleich wahrscheinlich hält, d. h. hier ungefähr eins zu eins.

Die Konstruktion (K3) der Art *Paul zweifelt, ob p* kann man als Spezialfall von (K2) auffassen, nämlich als (K2) mit $n = 2$, also mit den Alternativen p_1, p_2 , wobei $p_1 = p$ und $p_2 = \neg p$. Dies geschieht in Abschnitt 3.2 durch die Wahl einer „Hamblin-artigen“ Fragesemantik. Eine Schwierigkeit dieses Vorgehens wird bereits hier deutlich, wenn man die Bedeutungsumschreibungen (M2) und (M3) vergleicht. Gemäß (M3) sollte Paul die Proposition p für wesentlich unwahrscheinlicher halten als ihre Negation $\neg p$, nicht – wie nach (M2) zu erwarten – für in etwa gleich wahrscheinlich.

Die Paul zugeschriebene Präferenz für $\neg p$ lässt sich in Analogie zur Konstruktion (K1) „pragmatisch“ erreichen, indem man wieder die Ausdrucksalternative *vermuten* heranzieht. Allerdings tritt hier *vermuten – dass* in Konkurrenz zu *zweifeln – ob*, nicht bloß *vermuten* in Konkurrenz zu *zweifeln*. Überdies muss die Äußerung der Art (K3) selbst der pragmatischen Interpretation zugänglich sein, nicht nur ihre wörtliche Bedeutung.

Die für *zweifeln* angesetzte Bedeutung ergibt als wörtliche Bedeutung einer Äußerung der Gestalt (K4) *Paul zweifelt nicht, dass p*, dass es nicht der Fall ist, dass Paul nicht überzeugt ist, dass p . Folglich ist Paul überzeugt, dass p . Das ist, was wir nach (M4) erwarten.

Im Gegensatz zu den eben betrachteten Konstruktionen führen die Konstruktionen (K5) und (K6) der Art *Paul zweifelt nicht, ob p_1 oder $p_2 \dots$ oder p_n* bzw. *Paul zweifelt nicht, ob p* im Allgemeinen zu sprachlich inakzeptablen Äußerungen. Wir nehmen jedoch an, dass sie grammatisch sind, weil die Konstruktion (K4), in der *zweifeln* im Skopus einer Negation steht, grammatisch ist und die Konstruktionen (K2) und (K3), bei denen *zweifeln* einen *ob*-Satz einbettet, offenbar akzeptabel sind. Wörtlich bedeutet eine Äußerung der Art (K5), dass es nicht der Fall ist, dass Paul von keiner der Alternativen p_1, \dots, p_n überzeugt ist. Folglich ist Paul vom Zutreffen genau einer dieser Propositionen überzeugt, es wird jedoch nicht ausgesagt, welche das ist. Eine Äußerung der Gestalt (K6) bedeutet wörtlich: Paul ist überzeugt, dass p , oder Paul ist überzeugt, dass $\neg p$. Wiederum bleibt offen, wo Pauls Überzeugung liegt.

Man beachte, dass der Umstand, dass Paul überhaupt eine propositionale Einstellung hinsichtlich p_1, \dots, p_n bzw. p besitzt, von Äußerungen der Gestalt (K5) bzw. (K6) – und natürlich auch (K1) bis (K4) – präsupponiert wird. Daher ist *nicht zweifeln* nicht gleichbedeutend mit *keine Meinung haben*.

In vielen Kontexten, in denen Äußerungen der Art (K5) bzw. (K6) vorstellbar wären, ist die Frage gerade, welcher Ansicht Paul ist, nicht aber die Unterscheidung zwischen (hundertprozentigen) Überzeugungen und (lediglich starken) Vermutungen.³⁵ Solche Äußerungen sind daher im Allgemeinen „irrelevant“ und nicht informativ, d. h. sie verstoßen gegen die Gricesche Maxime der Relevanz, sind auch nicht uminterpretierbar und folglich inakzeptabel.

Ein denkbarer Kontext für eine Äußerung der Art (K6) wäre, dass die Aussage gerade darin besteht, dass Paul von p oder $\neg p$ überzeugt ist, nicht bloß irgendeine Meinung zu p besitzt, der Inhalt seiner Überzeugung aber offenkundig ist. Man vergleiche dazu Satz (15) aus Abschnitt 2.1, Satz (36) aus Abschnitt 2.3, die Beispiele unter (89) aus Anhang A sowie den – zugegebenermaßen zweifelhaften – Satz (77).

- (77) In Hamburg sind die Liberalen mit wenigen Stimmen über die Fünf-Prozent-Hürde gekommen, doch sie werden, natürlich, an der Regierung beteiligt, und keiner zweifelt, ob sie wirklich akzeptiert sind. [Marxistisches Forum der PDS-Sachsen, 23.10.01]

Auf die Konstruktion *zweifeln* mit w-Wort-Komplement gehen wir in Abschnitt 3.2, in dem wir eine Fragesemantik zur Verfügung haben werden, noch genauer ein. Die Idee ist, dass solche

³⁵ Für eine Präzisierung von Begriffen wie „ist die Frage“ s. z. B. van Rooy (2001).

Konstruktionen im Allgemeinen eine Präsuppositionsverletzung auslösen. Sie führen jedoch zu sprachlich akzeptablen Äußerungen, wenn der w-Wort-Satz als „subjektive Alternativenmenge“ interpretiert werden kann.

3.2 *Zweifeln* formal

Die wörtliche Bedeutung von *zweifeln* wird nun als nicht-elementare Relation mittels Wahrheitsbedingungen im Rahmen einer Mögliche-Welten-Semantik dargestellt. Dazu brauchen wir eine Semantik für eingebettete Fragen und ein Modell, in dem sich propositionale Einstellungen darstellen lassen.

Zur Interpretation direkter wie eingebetteter Fragesätze wählen wir eine „Hamblin-artige“ Propositionsmengen-Semantik. Die wörtliche Bedeutung einer direkten Frage ist die Menge der wörtlichen Bedeutungen der mit der Frage „kongruenten“ Antworten.³⁶ Entscheidungsfragen wie unter (78) werden allerdings nicht als $\{\llbracket \text{Ja.} \rrbracket, \llbracket \text{Nein.} \rrbracket\}$ interpretiert, sondern als Spezialfall einer Alternativenfrage angesehen, so dass (78) semantisch äquivalent ist zu (79). Die Elemente der Propositionsmengen, welche die Bedeutungen von w-Wort-Fragen wie unter (80) und (81) darstellen, hängen vom jeweils zu Grunde gelegten semantischen Universum ab. Will man Einflüsse des Kontextes modellieren, so kann man das Universum jeweils geeignet einschränken. Man vergleiche die Hamblin-Semantik für Fragen mit der von Rooth (1992) eingesetzten Alternativensemantik zur Behandlung von Fokus.

$$(78) \llbracket \text{Liebt Maria Hans?} \rrbracket = \{\text{lieben}(\text{Maria}, \text{Hans}), \neg \text{lieben}(\text{Maria}, \text{Hans})\}$$

$$(79) \llbracket \text{Liebt Maria Hans oder liebt Maria Hans nicht?} \rrbracket \\ = \{\text{lieben}(\text{Maria}, \text{Hans}), \neg \text{lieben}(\text{Maria}, \text{Hans})\}$$

$$(80) \llbracket \text{Wen liebt Maria?} \rrbracket = \{\text{lieben}(\text{Maria}, x) \mid x \in \text{Person}\} \\ = \{\text{lieben}(\text{Maria}, \text{Hans}), \text{lieben}(\text{Maria}, \text{Paul}), \dots\}$$

$$(81) \llbracket \text{Welchen Liebhaber heiratet Maria?} \rrbracket \\ = \{\text{heiraten}(\text{Maria}, x) \mid x \in \text{Person} \wedge \text{liebhabervon}(x, \text{Maria})\}^{37}$$

Wie schon von Karttunen (1977) bemerkt, lässt sich die eben angedeutete Semantik für direkte Fragen auf eingebettete Fragen übertragen.³⁸ Insbesondere werden *ob*-Sätze wie unter (82) interpretiert, wobei wir nur die Alternativenlesart von *oder* berücksichtigen.

Unter (83) ist angegeben, wie *dass*-Sätze interpretiert werden, nämlich als einelementige Propositionsmengen, deren jeweils einziges Element gerade die Bedeutung des *dass*-Satzes ohne den Komplementierer ist.

$$(82) \quad \text{a. } \llbracket \text{ob } p \rrbracket = \{\llbracket p \rrbracket, \neg \llbracket p \rrbracket\} \\ \text{b. } \llbracket \text{ob } p \text{ oder nicht} \rrbracket = \{\llbracket p \rrbracket, \neg \llbracket p \rrbracket\} \\ \text{c. } \llbracket \text{ob } p_1 \text{ oder } p_2 \dots \text{ oder } p_n \rrbracket = \{\llbracket p_1 \rrbracket, \llbracket p_2 \rrbracket, \dots, \llbracket p_n \rrbracket\}$$

$$(83) \llbracket \text{dass } p \rrbracket = \{\llbracket p \rrbracket\}$$

³⁶ Wir folgen hier dem Überblicksartikel Bäuerle and Zimmermann (1993). Man vergleiche auch Karttunen (1977) und Krifka (2001).

³⁷ Die Darstellung ist insofern ungenau, als sowohl $\text{heiraten}(\text{Maria}, x)$ als auch $\text{liebhabervon}(x, \text{Maria})$ abhängig von einem zusätzlichen Argument für die möglichen Welten sind. Das Zutreffen der Relation $\text{liebhabervon}(x, \text{Maria})$ wird mit der Frage präsupponiert.

³⁸ In Karttunens Theorie sind „indirekte Fragen“ fundamental, die Bedeutung „direkter Fragen“ leitet sich daraus ab.

Die eben skizzierte Hamblin-Semantik wählen wir, weil sie einfach ist. Es soll jedoch nicht für eine bestimmte Fragesemantik argumentiert werden. Nicht einmal auf den Status der *ob*-Sätze als eingebettete Fragen brauchen wir uns festzulegen.

Als Beispiel für einen anderen Ansatz, Fragebedeutungen zu erklären, sei auf die von Krifka (2001) vertretene Theorie verwiesen. Die Bedeutung einer *w*-Wort-Frage ist dort diejenige Funktion, welche aus Abstraktion über das Fragewort entsteht und deren Definitionsbereich die Menge der Bedeutungen der kongruenten Kurzantworten ist. Ja-Nein-Fragen werden nicht mehr als Spezialfall von Alternativenfragen aufgefasst, insbesondere ist deren Bedeutungsfunktion auf $\{\llbracket\text{Ja.}\rrbracket, \llbracket\text{Nein.}\rrbracket\}$ definiert. Wichtig in unserem Zusammenhang ist, dass aus den „strukturierten Fragebedeutungen“ die entsprechenden Propositionsmengen rekonstruierbar sind – umgekehrt ist das im Allgemeinen nicht möglich. Was sich in einer Hamblin-Semantik beschreiben lässt, ist auch mit strukturierten Fragebedeutungen beschreibbar.

Da wir *zweifeln* als Verb der propositionalen Einstellung ansehen, müssen wir solche Einstellungen modellieren. Dazu bedienen wir uns des Konzepts der subjektiven (doxastischen) Wahrscheinlichkeit, wie es Merin (1999) vorstellt. Die propositionalen Einstellungen, die ein Individuum besitzt, fasst man als Wahrscheinlichkeitsmaß auf einer geeigneten Menge von Propositionen auf. Die Definitionen der maßtheoretischen Begriffe, die wir hier verwenden, sind in Anhang C zusammengestellt.

Sei Ω die (nichtleere) Menge der möglichen Welten, sei \mathcal{D}_e die Menge der Entitäten. Propositionen identifizieren wir – wie in der Mögliche-Welten-Semantik üblich – mit Mengen von möglichen Welten, d. h. hier Teilmengen von Ω . Bezeichne $\mathcal{I}_{prop} \subseteq \mathcal{D}_e$ die Menge derjenigen Entitäten, denen wir propositionale Einstellungen zuschreiben wollen. Zu jedem $x \in \mathcal{I}_{prop}$ seien eine σ -Algebra \mathcal{F}_x in Ω und ein Wahrscheinlichkeitsmaß P_x auf \mathcal{F}_x gegeben. Schließlich sei \mathcal{F} eine σ -Algebra in Ω derart, dass $\mathcal{F}_x \subseteq \mathcal{F}$ für jedes $x \in \mathcal{I}_{prop}$ gilt. Dann stellt das Wahrscheinlichkeitsmaß P_x auf dem messbaren Raum (Ω, \mathcal{F}_x) die propositionalen Einstellungen der Entität $x \in \mathcal{I}_{prop}$ dar.

Unter \mathcal{I}_{prop} können wir uns die Menge aller „beseelten“ Entitäten vorstellen. Sei Paul ein Element von \mathcal{I}_{prop} . Dann lässt sich $\mathcal{F}_{\text{Paul}}$ als die Menge derjenigen Propositionen auffassen, zu denen Paul eine Einstellung oder Meinung besitzt. Ist $A \in \mathcal{F}_{\text{Paul}}$, so gibt $P_{\text{Paul}}(A)$ die Wahrscheinlichkeit an, welche Paul der Proposition A zuschreibt. Ist $A \subseteq \Omega$, aber $A \notin \mathcal{F}_{\text{Paul}}$, so hat Paul keine Meinung zu A .

Die oben definierte σ -Algebra \mathcal{F} kann man als die Menge aller „objektiv“ messbaren Propositionen ansehen. Möglicherweise ist $\mathcal{F} = \wp(\Omega)$, d. h. \mathcal{F} gleich der Potenzmenge von Ω .

Der Einfachheit halber machen wir die unrealistische Annahme, dass die Wahrscheinlichkeitsmaße P_x und ihre zugehörigen σ -Algebren \mathcal{F}_x , wobei $x \in \mathcal{I}_{prop}$, weltunabhängig bzw. konstant über alle möglichen Welten sind. Bei intensionaler Betrachtung hätte man Wahrscheinlichkeitsmaße $P_{x,\omega}$ auf $\mathcal{F}_{x,\omega}$ mit $x \in \mathcal{I}_{prop}$, $\omega \in \Omega$.

Wir haben hier subjektive Wahrscheinlichkeiten im Rahmen einer üblichen Mögliche-Welten-Semantik eingeführt. Die Grundmenge Ω lässt sich jedoch auch anders als die Menge aller möglichen Welten interpretieren (vgl. Merin, 1999).

Gemäß der oben gewählten Semantik werden eingebettete Sätze – auch *dass*-Sätze – als Mengen von Propositionen interpretiert. In Abschnitt 3.1 haben wir gefordert, dass die Satzkomplemente von *zweifeln* speziellen Propositionsmengen entsprechen, nämlich „Mengen von subjektiven Alternativen“ bzw. „subjektiven Alternativenmengen“. Diesen Begriff sowie zwei weitere Sprechweisen wollen wir nun präzisieren. Sei dazu \mathcal{A} eine Menge von Propositionen, also $\mathcal{A} \subseteq \wp(\Omega)$, und $x \in \mathcal{D}_e$.

Definition 1 \mathcal{A} heißt eine subjektive Alternativenmenge für x genau dann, wenn gilt:

- (i) $x \in \mathcal{I}_{prop}$,

- (ii) $\text{card}(\mathcal{A})$ ist endlich, d. h. $\mathcal{A} = \{A_1, \dots, A_n\}$ für eine natürliche Zahl n und geeignete Teilmengen A_1, \dots, A_n von Ω ,
- (iii) $\forall i \in \{1, \dots, n\} : A_i \in \mathcal{F}_x$,
- (iv) $\forall i, j \in \{1, \dots, n\}$ mit $i \neq j : P_x(A_i \cap A_j) = 0$,
- (v) $\sum_{i=1}^n P_x(A_i) = 1$, falls $n \geq 2$.

Definition 2 \mathcal{A} heißt eine echte subjektive Alternativenmenge für x genau dann, wenn \mathcal{A} subjektive Alternativenmenge für x und $\text{card}(\mathcal{A}) \geq 2$.

Definition 3 \mathcal{A} heißt eine objektive Alternativenmenge für x genau dann, wenn gilt:

- (i) $x \in \mathcal{I}_{prop}$,
- (ii) $\text{card}(\mathcal{A})$ ist endlich, d. h. $\mathcal{A} = \{A_1, \dots, A_n\}$ für eine natürliche Zahl n und geeignete Teilmengen $\{A_1, \dots, A_n\}$ von Ω ,
- (iii) $\forall i \in \{1, \dots, n\} : A_i \in \mathcal{F}_x$,
- (iv) $\forall i, j \in \{1, \dots, n\}$ mit $i \neq j : A_i \cap A_j = \emptyset$,
- (v) $\bigcup_{i=1}^n A_i = \Omega$, falls $n \geq 2$.

Ist \mathcal{A} eine objektive Alternativenmenge für $x \in \mathcal{I}_{prop}$, so ist \mathcal{A} auch subjektive Alternativenmenge für x . Der Umkehrschluss ist im Allgemeinen ungültig. Eine objektive Alternativenmenge für x ist nichts anderes als eine \mathcal{F}_x -messbare Partition von Ω .

Die Bedingung, dass die Satzkomplemente zu *zweifeln* als subjektive Alternativenmengen interpretiert werden, wird von *zweifeln* präsupponiert. In der hier verwendeten Mögliche-Welten-Semantik entspricht das einer Einschränkung des Definitionsbereichs des Denotats von *zweifeln*.

Bezeichne λ den Lambda-Abstraktionsoperator. Dann stellen wir Denotate natürlich-sprachlicher Ausdrücke in der Form $\lambda x_1 \dots \lambda x_n \llbracket R(x_1, \dots, x_n) \mid \phi(x_1, \dots, x_n) \rrbracket$ dar, wobei x_1, \dots, x_n Variablen bestimmter Typen sind, R eine n -stellige Relation, welche den Definitionsbereich der mittels λ -Abstraktion gewonnenen Funktion festlegt, und ϕ diejenige Formel, von der λ -abstrahiert wird.

Sei \mathcal{A} eine Variable über Mengen von Propositionen, also eine Variable vom Typ $\langle\langle s, t \rangle, t \rangle$, und x eine Entitätenvariable, also eine Variable vom Typ $\langle e \rangle$. Dann steht unter (B_{zw}) die wörtliche Bedeutung von *zweifeln*.

$$(B_{zw}) \lambda \mathcal{A} \lambda x \llbracket \mathcal{A} = \{A_1, \dots, A_n\} \text{ subjektive Alternativenmenge für } x \mid \forall i \in \{1, \dots, n\} : P_x(A_i) < 1 \rrbracket$$

Aus (B_{zw}) ergeben sich die wörtlichen Bedeutungen der Konstruktionen (K1) bis (K4) zu (B1) bis (B4), wenn A, A_1, \dots, A_n die wörtlichen Bedeutungen von p, p_1, \dots, p_n sind.³⁹

(K1) Paul zweifelt, dass p .

³⁹ Wir schreiben reelle Intervalle in eckigen Klammern. Nach innen weisende Klammern zeigen abgeschlossene, nach außen weisende Klammern offene Intervalle an. In Analogie dazu schreiben wir halboffene Intervalle mit jeweils einer nach innen und einer nach außen sich öffnenden eckigen Klammer.

- (B1) $\llbracket \{A\} \text{ subjektive Alternativenmenge für Paul} \mid P_{\text{Paul}}(A) < 1 \rrbracket$
 $= \llbracket \text{Paul} \in \mathcal{I}_{\text{prop}} \wedge A \in \mathcal{F}_{\text{Paul}} \mid P_{\text{Paul}}(A) \in]0, 1[\rrbracket$
- (K2) Paul zweifelt, ob p_1 oder $p_2 \dots$ oder p_n .
- (B2) $\llbracket \{A_1, \dots, A_n\} \text{ subjektive Alternativenmenge für Paul} \mid \forall i \in \{1, \dots, n\} : P_{\text{Paul}}(A_i) < 1 \rrbracket$
- (K3) Paul zweifelt, ob p .
- (B3) $\llbracket \{A, \sim A\} \text{ subjektive Alternativenmenge für Paul} \mid P_{\text{Paul}}(A) < 1 \wedge P_{\text{Paul}}(\sim A) < 1 \rrbracket$
 $= \llbracket \text{Paul} \in \mathcal{I}_{\text{prop}} \wedge A \in \mathcal{F}_{\text{Paul}} \mid P_{\text{Paul}}(A) \in]0, 1[\rrbracket$
- (K4) Paul zweifelt nicht, dass p .
- (B4) $\llbracket \{A\} \text{ subjektive Alternativenmenge für Paul} \mid \neg P_{\text{Paul}}(A) < 1 \rrbracket$
 $= \llbracket \text{Paul} \in \mathcal{I}_{\text{prop}} \wedge A \in \mathcal{F}_{\text{Paul}} \mid P_{\text{Paul}}(A) = 1 \rrbracket$

Um die Argumentation aus Abschnitt 3.1 formal nachspielen zu können, geben wir unter (B_{gl}) und (B_{vm}) die wörtliche Bedeutung von *glauben*⁴⁰ bzw. *vermuten* an.

- (B_{gl}) $\lambda \mathcal{A} \lambda x \llbracket x \in \mathcal{I}_{\text{prop}} \wedge \mathcal{A} = \{A\} \text{ einelementig mit } A \in \mathcal{F}_x \mid P_x(A) = 1 \rrbracket$
- (B_{vm}) $\lambda \mathcal{A} \lambda x \llbracket x \in \mathcal{I}_{\text{prop}} \wedge \mathcal{A} = \{A\} \text{ einelementig mit } A \in \mathcal{F}_x \mid P_x(A) \in]\frac{1}{2}, 1[\rrbracket$

Wird ein Satz der Gestalt (K1) *Paul zweifelt, dass p* geäußert und ist $\llbracket p \rrbracket = A$, so ist nach (B1) die Satzaussage wörtlich, dass $P_{\text{Paul}}(A) < 1$, d. h. Paul schreibt der Proposition A eine Wahrscheinlichkeit strikt kleiner als eins zu. Das ist die wörtliche Bedeutung von (M1). Nach der gewöhnlichen Bedeutung von (M1) erwarten wir allerdings $P_{\text{Paul}}(A) \leq \frac{1}{2}$. Ist $P_{\text{Paul}}(A) \in]\frac{1}{2}, 1[$, so könnte man wegen (B_{vm}) auch sagen, dass Paul vermutet, dass p . Diese Äußerung legte $P_{\text{Paul}}(A)$ auf das Intervall $]\frac{1}{2}, 1[$ fest. Dabei ist lediglich der Fall $P_{\text{Paul}}(A) = 1$ nicht durch *zweifeln* abgedeckt. Gewöhnlich äußert man in diesem Fall jedoch nicht *vermuten*, sondern das „informativere“ *glauben* bzw. *überzeugt sein*. Eine Äußerung von *zweifeln – dass* der Art (K1) impliziert also skalar, dass $P_{\text{Paul}}(A) \in [0, \frac{1}{2}]$.

Eine Äußerung der Art (K2) *Paul zweifelt, ob p_1 oder $p_2 \dots$ oder p_n* besagt gemäß (B2) wörtlich, dass $P_{\text{Paul}}(A_i) \in [0, 1[$ für jedes $i \in \{1, \dots, n\}$ und $P_{\text{Paul}}(A_i) > 0$ für mindestens zwei verschiedene Indizes i , falls $\llbracket p_i \rrbracket = A_i$ für $i \in \mathbb{N}_n$. Die Interpretation (M2) lässt etwas wie $P_{\text{Paul}}(A_i) \approx \frac{1}{n}$ erwarten. Da die Alternativen A_1, \dots, A_n durch *ob p_1 oder \dots p_n* weitgehend symmetrisch ausgedrückt werden, ist diese Interpretation in Anbetracht von (B2) sinnvoll, sofern der Kontext nichts anderes nahe legt.

Äußerungen der Gestalt (K3) *Paul zweifelt, ob p* bedeuten nach (B3) wörtlich, dass $P_{\text{Paul}}(A) \in]0, 1[$, falls $\llbracket p \rrbracket = A$. Nach (M3) sollten wir eher $P_{\text{Paul}}(A) \in]0, a[$ mit $a \approx \frac{1}{2}$ haben. Dies lässt sich in Analogie zum Fall der Konstruktion (K1) erreichen, wenn man die Konkurrenz von *vermuten – dass* mit *zweifeln – ob* zulässt. Man beachte aber, dass der Wert von a kontextabhängig ist, und Situationen vorstellbar sind, in denen in der Tat $a = 1$.

Nach (B4) ist die wörtliche Bedeutung von Äußerungen der Art (K4) *Paul zweifelt nicht, dass p* , dass $P_{\text{Paul}}(A) = 1$, falls wieder $\llbracket p \rrbracket = A$. Das stimmt mit der Interpretation (M4) überein.

Unter (B5) und (B6) sind die zu den Konstruktionen (K5) der Gestalt *Paul zweifelt nicht, ob p_1 oder $p_2 \dots$ oder p_n* bzw. (K6) der Gestalt *Paul zweifelt nicht, ob p* gehörigen wörtlichen Bedeutungen, wie sie aus (B_{zw}) folgen, falls $\llbracket p_i \rrbracket = A_i$ für $i \in \mathbb{N}_n$ bzw. $\llbracket p \rrbracket = A$, aufgeführt.

- (B5) $\llbracket \{A_1, \dots, A_n\} \text{ subjektive Alternativenmenge für Paul} \mid \exists i \in \{1, \dots, n\} : P_{\text{Paul}}(A_i) = 1 \rrbracket$

⁴⁰ Im Sinne von *überzeugt sein*.

$$(B6) \quad \llbracket \{A, \sim A\} \text{ subjektive Alternativenmenge für Paul} \mid P_{\text{Paul}}(A) = 1 \vee P_{\text{Paul}}(\sim A) = 1 \rrbracket \\ = \quad \llbracket \text{Paul} \in \mathcal{I}_{prop} \wedge A \in \mathcal{F}_{\text{Paul}} \mid P_{\text{Paul}}(A) = 1 \vee P_{\text{Paul}}(\sim A) = 1 \rrbracket$$

Wenn man bedenkt, dass $P_{\text{Paul}}(\llbracket p \rrbracket) = 1$ heißt, dass Paul überzeugt ist, dass p , während $P_{\text{Paul}}(\llbracket \neg p \rrbracket) = 0$ bedeutet, dass Paul überzeugt ist, dass es nicht der Fall ist, dass p , so sieht man wie in Abschnitt 3.1, warum die Äußerungen der Art (K5) bzw. (K6) im Allgemeinen inakzeptabel sind.

Wir haben neben der wörtlichen Bedeutung von *zweifeln* auch diejenige von *glauben* dargestellt. Nahe liegend wäre zu versuchen, noch die Bedeutung von *wissen* anzugeben. Es besteht jedoch ein wesentlicher semantischer Unterschied zwischen *wissen* auf der einen und Verben wie *glauben* oder *zweifeln* auf der anderen Seite, nämlich der, dass *wissen* faktiv ist, d. h. das Zutreffen derjenigen Propositionen, die „gewusst werden“, wird präsupponiert. Das gilt sowohl für *wissen* mit *dass*-Satz als auch für *wissen* mit *ob*- oder *w*-Wort-Komplementsatz. Den Zusammenhang zwischen Faktivität bzw. Nichtfaktivität eines Verbs und dessen möglichen Satzkomplementen untersuchen Kiparsky and Kiparsky (1970).⁴¹

Ein zweiter wesentlicher Unterschied zwischen *wissen* einerseits und Ausdrücken der propositionalen Einstellung andererseits besteht darin, dass von einem Individuum, das weiß, dass p , präsupponiert wird, es verfüge über „Evidenz“ für das Zutreffen der Proposition p , während Verben wie *glauben*, *vermuten* oder *zweifeln* keine Aussage über den Besitz von Evidenz für die jeweilige propositionale Einstellung implizieren.

Man beachte in diesem Zusammenhang noch, dass sich *wissen-ob* wie unter (84) durch *wissen-dass* paraphrasieren lässt, während eine entsprechende Paraphrase für *zweifeln-ob* unsinnig wäre. Allerdings lässt sich *zweifeln-ob* in der wörtlichen Bedeutung wie unter (85) durch *zweifeln-dass* ausdrücken.

$$(84) \quad \text{Paul weiß, ob } p. \\ \Leftrightarrow \text{Wenn } p, \text{ dann weiß Paul, dass } p, \text{ und wenn } \neg p, \text{ dann weiß Paul, dass } \neg p.$$

$$(85) \quad \text{Paul zweifelt, ob } p. \\ \Leftrightarrow \text{Paul zweifelt, dass } p, \text{ und Paul zweifelt, dass } \neg p.$$

In Abschnitt 2.2 haben wir gesehen, dass Äußerungen von *zweifeln* in Kombination mit *w*-Wort-Sätzen teilweise recht gut bewertet wurden. Das hängt – außer von der Satzaussage – von der *w*-Wort-Phrase ab. So erhielten die Beispiele (18c), (18d), (18a) der Art *zweifeln-welcher* recht gute Bewertungen, die Sätze (21d), (21e), (18b)⁴² und (21f) mit *wer*- bzw. *wie*-Komplement eher schlechte Akzeptabilitätsnoten. Allerdings ist der Übergang, was die sprachliche Akzeptabilität der Konstruktionen und Beispiele betrifft, fließend.

Gemäß der hier gewählten Hamblin-Semantik ist das Denotat eines *w*-Wort-Satzes eine Menge von Propositionen. Im Allgemeinen bilden diese Propositionen keine (subjektive) Alternativenmenge, so dass eine Präsuppositionsverletzung vorliegt, soll der *w*-Wort-Satz als Komplement zu *zweifeln* dienen. Im Falle der *welcher*-Beispiele ist die Präsupposition, dass das Denotat des Komplementsatzes eine subjektive Alternativenmenge sei, jedoch erfüllt oder durch geeignete Annahmen an das Wahrheitsmaß, das die propositionalen Einstellungen des Subjekts zu *zweifeln* darstellt, oder mittels kontextabhängiger Einschränkung der Propositionsmenge, die der *w*-Wort-Satz denotiert, akkomodierbar. In anderen Fällen, wie bei den oben zitierten *zweifeln*-Sätzen mit *wer* oder *wie*, ist die Anpassung der Interpretation des Komplementsatzes an die durch *zweifeln* ausgelöste Präsupposition zu aufwendig oder unmöglich, und die zugehörigen Äußerungen werden dementsprechend als wenig akzeptabel empfunden.

⁴¹ Kiparsky und Kiparsky unterscheiden zwischen syntaktischer und semantischer Faktivität. Syntaktisch faktiv sind solche Verben (des Englischen), die durch *the fact that* eingeleitete Nebensätze als Komplemente zulassen. Syntaktisch und semantisch faktiv sind z. B. *ignore*, *forget*, *regret*, nichtfaktiv sind z. B. *suppose* und *believe*. Dagegen ist *know* zwar semantisch faktiv, nach obigem Kriterium jedoch nicht syntaktisch faktiv. Wir wollen „faktiv“ ausschließlich im Sinne von semantisch faktiv verstehen.

⁴² Vgl. Fußnote 19.

3.3 Sprachwandel formal

In Abschnitt 1 sind wir in dem Zitat von Eisenberg auf die Behauptung gestoßen, die Konstruktion *zweifeln – ob* sei gegenüber *zweifeln – dass* „die ältere Verwendung“. In Abschnitt 2.3 haben wir diese Behauptung jedoch nicht bestätigen können. Sie hätte allerdings gut zur Etymologie des Verbs gepasst, weil *zweifeln* von dem Zahlwort *zwei* abgeleitet ist.

In unserem Rahmen lässt sich der von Eisenberg behauptete (hypothetische) Sprachwandel modellieren. War früher *zweifeln – dass* ausgeschlossen, so ersetze man, um die hypothetische wörtliche Bedeutung einer Vorform von *zweifeln* zu erhalten, in (B_{zw}) die Bedingung „subjektive Alternativenmenge“ durch „echte subjektive Alternativenmenge“. In geeigneten Kontexten sollten auch w-Wort-Komplemente möglich gewesen sein. Indem man von den (echten) subjektiven Alternativenmengen zusätzlich fordert, dass sie genau zwei Elemente besitzen (vgl. die zweite Bedingung in Definition 1), bildet man die wörtliche Bedeutung eines Verbs *zweifeln* nach, welches „Schwanken“ zwischen genau zwei Alternativen ausdrückt.

Sollte die Konstruktion *zweifeln – ob* in Zukunft aussterben, so müsste man (B_{zw}) in Analogie zu (B_{gi}) bzw. (B_{vm}) modifizieren. Man hätte dann als Denotat von *zweifeln* die wörtliche Bedeutung von *nicht glauben*.

Umgekehrt ergibt sich nun, warum man *glauben – ob* weder sagen kann noch jemals wird sagen können. Lassen wir nicht nur einelementige Propositionsmengen, sondern auch für *glauben* subjektive Alternativenmengen zu, so erhalten wir (B_{g*}) statt (B_{gi}) als Denotat von *glauben*. Man beachte, dass an der Stelle des Allquantors in (B_{zw}) hier der Existenzquantor stehen muss.

$$(B_{g*}) \lambda \mathcal{A} \lambda x \llbracket \mathcal{A} = \{A_1, \dots, A_n\} \text{ subjektive Alternativenmenge für } x \mid \exists i \in \{1, \dots, n\} : P_x(A_i) = 1 \rrbracket$$

Die Präsupposition in (B_{g*}) , dass das Satzargument \mathcal{A} eine subjektive Alternativenmenge sei, scheint nicht anders motiviert zu sein als durch die Analogie zu (B_{zw}) . Jene Bedingung bedeutet jedoch nur, dass die endlich vielen Wahlmöglichkeiten, welche durch das Nebensatzkomplement zu *glauben* ausgedrückt werden, subjektiv vollständig und überschneidungsfrei sein müssen. Dies ist eine sinnvolle Annahme für ein Verb, das subjektive Einstellungen zu Mengen von Propositionen beschreiben soll.

Wir können uns sogar auf den Fall des *ob*-Komplements ohne explizite Angabe der Alternativen zurückziehen, d. h. auf Äußerungen der Gestalt (K7). Die Präsupposition reduziert sich dann auf die Forderung, dass $\llbracket p \rrbracket$ $\mathcal{F}_{\text{Paul}}$ -messbar sei, dass also Paul eine Meinung zu p habe. Die zu (K7) gehörige wörtliche Bedeutung wäre gemäß (B_{g*}) dann wie unter (B7) angegeben.

(K7) * Paul glaubt, ob p .

$$(B7) \llbracket \{A, \sim A\} \text{ subjektive Alternativenmenge für Paul} \mid P_{\text{Paul}}(A) = 1 \vee P_{\text{Paul}}(\sim A) = 1 \rrbracket \\ = \llbracket \text{Paul} \in \mathcal{I}_{prop} \wedge A \in \mathcal{F}_{\text{Paul}} \mid P_{\text{Paul}}(A) = 1 \vee P_{\text{Paul}}(\sim A) = 1 \rrbracket$$

Die wörtliche Bedeutung (B7) zu (K7) ist aber gleich der unter (B6) angeführten wörtlichen Bedeutung der Konstruktion (K6) der Gestalt *Paul zweifelt nicht, ob p*. Damit wäre *glauben – ob* zumindest für den Fall, dass der *ob*-Satz explizit genau eine Alternative benennt, äquivalent zu *nicht zweifeln – ob*.

Folglich führte *glauben – ob*, selbst wenn der *ob*-Satz als Komplement zu *glauben* grammatisch wäre, wie *nicht zweifeln – ob* im Allgemeinen zu sprachlich inakzeptablen Äußerungen.⁴³ Die Konstruktion *nicht glauben – ob* wäre äquivalent zu *zweifeln – ob* und würde durch jenes „blockiert“.

Man beachte, dass dieser Theorie zufolge *glauben – ob* nicht auf Grund der Nichtfaktivität von *glauben* unzulässig ist, wie der Vergleich mit *wissen* vermuten lassen könnte, denn auch *zweifeln* ist nichtfaktiv.

⁴³ Man vgl. wieder Abschnitt 3.1, insbesondere im Hinblick auf die Konstruktion (K6).

An dieser Stelle ist ein empirischer Einwand angebracht, welcher die grammatische Konstruktion *nicht glauben – dass* betrifft. Gemäß (B_{g1}) steht unter (B8) die wörtliche Bedeutung einer Äußerung der Art (K8), d. h. *nicht glauben – dass* ist äquivalent zu *zweifeln – dass*.

(K8) Paul glaubt nicht, dass p .

(B8) $\llbracket \text{Paul} \in \mathcal{I}_{prop} \wedge A \in \mathcal{F}_{\text{Paul}} \mid P_{\text{Paul}}(A) \in [0, 1[\rrbracket$

Dieselbe wörtliche Bedeutung (B8) erhalten die Äußerungen der Gestalt *Paul ist nicht überzeugt, dass p* . Und tatsächlich bedeuten solche Äußerungen lediglich, dass Paul der Proposition p eine Wahrscheinlichkeit echt kleiner als eins zuschreibt.

Äußerungen der Art (K8) werden hingegen wie *Paul glaubt, dass $\neg p$* verstanden. Dieses Phänomen ist als „Negationsanhebung“ wohl bekannt. Man beachte, dass wir von Ausdrücken wie *glauben*, *vermuten* und *überzeugt sein* annehmen, dass sie präsupponieren, dass das jeweilige Subjekt eine Meinung zu der durch das Satzkomplement benannten Proposition besitze.

Den Effekt der Negationsanhebung können wir ohne Rekurs auf pragmatische Prinzipien durch einen Trick erzwingen, indem wir annehmen, dass *glauben* eine weitere Präsupposition enthalte, nämlich die, dass es sich bei der Wahrscheinlichkeitszuschreibung um ein „Null-Eins-Gesetz“ handle. Anstelle von (B_{g1}) hätten wir dann (B_{g'}).

(B_{g'}) $\lambda \mathcal{A} \lambda x \llbracket x \in \mathcal{I}_{prop} \wedge \mathcal{A} = \{A\} \text{ einelementig mit } A \in \mathcal{F}_x \wedge P_x(A) \in \{0, 1\} \mid P_x(A) = 1 \rrbracket$

Evidenz für (B_{g'}) liefert der Vergleich der Sätze unter (86) und (87). Die nach (B_{g1}) zu erwartende wörtliche Bedeutung von *nicht glauben* scheint schwer zugänglich zu sein.

- (86) a. Clarisse ist nicht überzeugt, dass Ulrich sie liebt, aber sie hält es für möglich.
 b. Clarisse hält es für möglich, dass Ulrich sie liebt, aber sie ist davon nicht überzeugt.
- (87) a. Clarisse glaubt nicht, dass Ulrich sie liebt, aber sie hält es für möglich.
 b. Clarisse hält es für möglich, dass Ulrich sie liebt, aber sie glaubt es nicht.

Auch wenn man (B_{g'}) annimmt, ergibt sich, dass *glauben – ob* im Allgemeinen inakzeptable Äußerungen erzeugen würde. Die Argumentation verlief sowohl für *glauben – ob* wie für *nicht glauben – ob* analog der obigen zum Ausschluss von *glauben – ob*.

Statt die Präsuppositionen in (B_{g1}) zu ändern, könnte man auf die Idee kommen, im eigentlichen Bedeutungsteil an der Stelle von $P_x(A) = 1$ etwas wie $P_x(A) \lesssim 1$ zu fordern. Auf diese Weise rückte *glauben* in die Nähe von *vermuten*, und solche Verwendung existiert in der Tat. Die Konsequenz wäre aber, dass die Menge derjenigen Propositionen, von denen ein Individuum glaubt, dass sie zutreffen, nicht mehr abgeschlossen wäre unter Konjunktion. So folgte z. B. aus *Clarisse glaubt, dass Ulrich sie liebt* und *Clarisse glaubt, dass Zeno Ada geheiratet hat* nicht notwendig, dass Clarisse glaubt, es sei der Fall, dass Ulrich sie liebt und Zeno Ada geheiratet hat. Zu erklären bliebe allerdings die Verwendung von *glauben* im Sinne von *vermuten*.⁴⁴

Das gleiche Spiel wie mit *glauben* wollen wir noch mit *vermuten* spielen. Die wörtliche Bedeutung von *vermuten* wäre, ließe man Alternativenmengen zu, wie in (B_{v*}) angegeben.

(B_{v*}) $\lambda \mathcal{A} \lambda x \llbracket \mathcal{A} = \{A_1, \dots, A_n\} \text{ subjektive Alternativenmenge für } x \mid \exists i \in \{1, \dots, n\} : P_x(A_i) > \frac{1}{2} \rrbracket$

Betrachten wir wieder den Spezialfall, dass der *ob*-Satz explizit genau eine Alternative benennt. Die wörtliche Bedeutung einer Äußerung der Gestalt (K9) ergäbe sich aus (B_{v*}) dann zu (B9), falls $\llbracket p \rrbracket = A$.

⁴⁴ Eine mögliche Erklärung könnte mit der Tatsache zu tun haben, dass (subjektive) Überzeugungen nicht notwendig mit der „wirklichen Welt“ übereinstimmen.

(K9) * Paul vermutet, ob p .

$$(B9) \quad \begin{aligned} & \llbracket \{A, \sim A\} \text{ subjektive Alternativenmenge für Paul} \mid P_{\text{Paul}}(A) > \frac{1}{2} \vee P_{\text{Paul}}(\sim A) > \frac{1}{2} \rrbracket \\ & = \quad \llbracket \text{Paul} \in \mathcal{I}_{prop} \wedge A \in \mathcal{F}_{\text{Paul}} \mid P_{\text{Paul}}(A) \neq \frac{1}{2} \rrbracket \end{aligned}$$

Die Aussage von *Paul vermutet, ob p* wäre, dass Paul p nicht für exakt so wahrscheinlich hält wie $\neg p$, aber schon „in etwa so wahrscheinlich“ wäre möglich, natürlich auch alle übrigen Einstellungen. Dabei wird präsupponiert, dass Paul überhaupt eine Meinung zur Frage nach p hat. Die Konstruktion *vermuten – ob* führte also, selbst wenn sie grammatisch wäre, zu in aller Regel irrelevanten Äußerungen.⁴⁵

A Beispieltreffer der zweiten Suche

Im Folgenden sind insgesamt neun Beispiele für *zweifeln*-Sätze aufgeführt, die allesamt den Ergebnissen der zweiten Korpusauswertung (s. zweite Suche in Abschnitt 2.1) entstammen. Unter (88) finden sich drei der elf einschlägigen Treffer für die Konstruktion *zweifeln – ob* mit expliziten Alternativen im *ob*-Satz, unter (89) drei der sechs Treffer der Art verneintes *zweifeln* mit *ob*-Satz. Unter (90) schließlich stehen die drei keiner *zweifeln*-Konstruktion zugeordneten Treffer.

- (88) a. Natürlich zweifeln wir jetzt auch, ob der andere Herr damals Gerhard Schröder war oder nur ein Schröder-Imitator. [Frankfurter Rundschau, 9.7.1999]
- b. Ich stimme voll und ganz mit den Gedanken von Heinzpeter Studer überein und zweifle ebenfalls, ob “Herr Delamuraz sein Dossier noch im Griff hat” oder ob er einfach immer zugunsten Westschweizer Einwände (die der Schweinemäster und nicht die der KonsumentInnen) entscheidet. [Züricher Tagesanzeiger, 19.3.1997]
- c. Während Moretti noch zweifelt, ob er nun einen politischen Dokumentarfilm oder ein leichtes Musical drehen soll, ist beides – in Aprile – schon entstanden: In Venedig, auf der Durchreise, beschließt Moretti, zwischen zwei Gedanken über den Zustand Italiens, am Wasser und zwischen den herumstehenden Sesseln ein wenig zu tanzen. [Die Presse, 20.5.1998]
- (89) a. Man braucht gar nicht viel zu zweifeln, ob die Kalkulation aufgehen wird. [Kleine Zeitung, 12.1.1997]
- b. Nicht nur aus Fairneß jenen gegenüber, deren Eigentum geraubt wurde, sondern auch denjenigen gegenüber, die dieses Kapitel der eigenen Vergangenheit auch aufgeklärt sehen wollen, die nicht mehr zweifeln wollen, ob etwa jemand aus der eigenen Familie oder der pensionierte Kulturbeamte involviert war in diese Geschäfte – von denen viele wußten und über die viele schweigen. [Oberösterreichische Nachrichten, 13.11.1998]
- c. In dem Moment, da man auf Horst Skoff, das mehr verschlammte als schlampige Talent, keinen Groschen mehr gesetzt hätte, schlug der Kärtner so spektakulär zurück, als hätte es nie eine Krise gegeben, als wäre nie gezweifelt worden, ob er jemals wieder zur alten Form finden würde, mit der er große Stars besiegt und unter die Top 20 gekommen war. [Die Presse, 12.7.1993]
- (90) a. Man darf zweifeln, ob oder wie das Ding sich durchsetzt. [Berliner Morgenpost, 12.10.1999]
- b. Ob es Apple eine neue Erfolgsära oder den Niedergang bescheren wird, darüber zweifelt seither die Fachwelt. [Salzburger Nachrichten, 8.8.1997]
- c. Zweifelt da noch irgendwer, ob nicht auch beim seinerzeitigen Ankauf der so reichlich überwurzeltten Krawall-Draken für unsere glorreiche Luftwaffe kräftig mitgeschnitten worden sei? [Neue Kronen-Zeitung, 28.10.1995]

⁴⁵ Relevanz verstehen wir hier in einem vorthoretischen Sinn, man vergleiche aber Merin (1999).

B Ergebnisse der zweiten Befragung

In den Tabellen 1 bis 3 sind die Ergebnisse der zweiten Befragung (s. Abschnitt 2.2) dargestellt. Die drei Tabellen sind gleich aufgebaut. In der zweiten Spalte steht der jeweils fragliche Satz, in den fünf Spalten rechts davon finden sich kumuliert die zugehörigen Informantenurteile gemäß der fünfstelligen Urteilsskala (Werte 1 bis 5), unter **total** steht die Gesamtzahl der zu dem Satz abgegebenen gültigen Urteile. In der vorletzten Spalte ist unter **MWS** die natürliche Schätzung für den Mittelwert der Informantenurteile angegeben, in der letzten Spalte unter **VarS** die natürliche Schätzung für deren Varianz. Die Sätze sind aufsteigend nach Mittelwert- und Varianzschätzung geordnet.

In der ersten Spalte der Tabellen finden sich die Satznummern, aus denen die Reihenfolge der Sätze in den Tests ersichtlich ist. Der ersten Gruppe wurden die Sätze nach Konstruktion geordnet in drei Abschnitten (1 bis 3, Sätze jeweils von a bis n) präsentiert. Die Teilnehmer der zweiten Gruppe erhielten ihre Testsätze in einer zufälligen Reihenfolge (von 1 bis 46 nummeriert). Die Satznummern in Tabelle 3, welche die Urteile beider Gruppen summiert wiedergibt, entsprechen denen aus Tabelle 1.

Tabelle 1: Ergebnisse der ersten Gruppe (Sätze nach Konstruktion geordnet)

	Sätze	Notenanzahlen						MWS	VarS
		1	2	3	4	5	total		
1. e)	Hans glaubt, dass 2 plus 2 gleich 4 ist.	12	10	4	0	0	26	1,69	0,52
1. d)	Hans zweifelt nicht, dass 2 plus 2 gleich 4 ist.	11	5	9	1	0	26	2,00	0,92
1. k)	Niemand zweifelt, dass Maria und Paul heiraten werden.	9	11	4	1	1	26	2,00	1,00
3. c)	Maria zweifelt, welche Einladung sie annehmen soll.	7	9	7	2	0	25	2,16	0,85
1. b)	Maria zweifelt, dass Paul die Alpen zu Fuß überquert hat.	6	11	8	0	1	26	2,19	0,85
2. i)	Maria zweifelt, ob sie die Einladung von Paul annehmen soll.	6	10	6	0	2	24	2,25	1,19
3. e)	Maria zweifelt, welchen ihrer drei Liebhaber sie heiraten soll.	7	7	9	1	1	25	2,28	1,08
2. j)	Maria zögert, ob sie die Einladung von Paul annehmen soll.	8	6	8	2	1	25	2,28	1,24
1. f)	Hans glaubt nicht, dass 2 plus 2 gleich 4 ist.	9	7	4	2	4	26	2,42	2,01
3. d)	Maria zögert, welche Einladung sie annehmen soll.	3	12	7	2	1	25	2,44	0,89
2. a)	Paul zweifelt, ob Berlin in Zukunft besser regiert werden wird.	2	12	8	0	2	24	2,50	0,92
1. a)	Paul zweifelt, dass Berlin in Zukunft besser regiert werden wird.	2	10	12	2	0	26	2,54	0,56
2. r)	Clarisse zweifelt, ob Ulrich sie wirklich liebt oder nur bewundert oder sie in Wahrheit nicht ausstehen kann.	6	4	8	4	1	23	2,57	1,38
3. a)	Paul zweifelt, welcher der beiden Kandidaten als Bürgermeister geeigneter ist.	5	10	2	4	3	24	2,58	1,74
3. b)	Paul zweifelt, wie sich das Klima verändern wird.	5	10	3	2	4	24	2,58	1,83
1. h)	Hans glaubt, dass 2 plus 2 ungleich 4 ist.	6	4	11	4	1	26	2,62	1,24
3. g)	Paul zweifelt nicht, wer für die Misere der Bankgesellschaft verantwortlich ist.	4	9	4	8	0	25	2,64	1,19
2. b)	Maria zweifelt, ob Paul die Alpen zu Fuß überquert hat.	4	7	7	6	1	25	2,72	1,24
1. c)	Hans zweifelt, dass 2 plus 2 gleich 4 ist.	7	3	7	5	3	25	2,76	1,86

Fortsetzung auf der nächsten Seite

<i>Fortsetzung Tabelle 1</i>									
	Sätze	Notenanzahlen					total	MWS	VarS
		1	2	3	4	5			
1. l.)	Woods zweifelt, dass ein Mann wie Christo beispielsweise diese "kosmische Dimension" besitze.	4	5	11	5	1	26	2,77	1,10
2. q.)	Maria zweifelt, ob sie Wein oder Käse zum Abendessen mitbringen soll.	3	10	3	3	4	23	2,78	1,74
2. d.)	Hans zweifelt nicht, ob 2 plus 2 gleich 4 ist.	8	3	4	4	5	24	2,79	2,41
3. f.)	Paul zweifelt, wer für die Misere der Bankgesellschaft verantwortlich ist.	3	9	5	6	2	25	2,80	1,36
1. n.)	Woods zweifelt nicht, dass ein Mann wie Christo beispielsweise diese "kosmische Dimension" besitze.	2	8	10	5	1	26	2,81	0,92
1. i.)	Maria zweifelt, dass sie die Einladung von Paul annehmen soll.	3	8	7	7	1	26	2,81	1,16
1. m.)	Woods zweifelt sehr, dass ein Mann wie Christo beispielsweise diese "kosmische Dimension" besitze.	5	4	8	9	0	26	2,81	1,23
2. l.)	Woods zweifelt, ob ein Mann wie Christo beispielsweise diese "kosmische Dimension" besitze.	3	7	6	7	1	24	2,83	1,22
2. o.)	Woods zweifelt, ob nicht ein Mann wie Christo beispielsweise diese "kosmische Dimension" besitze.	2	6	7	7	1	23	2,96	1,09
1. g.)	Hans zweifelt, dass 2 plus 2 ungleich 4 ist.	3	4	11	7	1	26	2,96	1,04
2. k.)	Niemand zweifelt, ob Maria und Paul heiraten werden.	5	6	2	6	5	24	3,00	2,17
1. p.)	Woods zweifelt, dass ein Mann wie Christo beispielsweise diese "kosmische Dimension" nicht besitze.	1	8	8	7	2	26	3,04	1,04
3. h.)	Niemand zweifelt, wer für die Misere der Bankgesellschaft verantwortlich ist.	4	2	8	8	2	24	3,08	1,41
2. m.)	Woods zweifelt sehr, ob ein Mann wie Christo beispielsweise diese "kosmische Dimension" besitze.	3	4	7	6	3	23	3,09	1,47
2. c.)	Hans zweifelt, ob 2 plus 2 gleich 4 ist.	6	5	2	4	8	25	3,12	2,59
1. j.)	Maria zögert, dass sie die Einladung von Paul annehmen soll.	2	5	7	9	3	26	3,23	1,25
1. s.)	Clarisse zweifelt nicht, dass Ulrich sie wirklich liebt oder nur bewundert oder sie in Wahrheit nicht ausstehen kann.	0	9	6	5	6	26	3,31	1,37
1. r.)	Clarisse zweifelt, dass Ulrich sie wirklich liebt oder nur bewundert oder sie in Wahrheit nicht ausstehen kann.	2	5	6	8	5	26	3,35	1,46
2. p.)	Woods zweifelt, ob ein Mann wie Christo beispielsweise diese "kosmische Dimension" nicht besitze.	1	6	4	8	4	23	3,35	1,36
2. n.)	Woods zweifelt nicht, ob ein Mann wie Christo beispielsweise diese "kosmische Dimension" besitze.	0	6	8	5	5	24	3,38	1,15
2. e.)	Hans glaubt, ob 2 plus 2 gleich 4 ist.	5	4	2	3	10	24	3,38	2,65
1. o.)	Woods zweifelt, dass nicht ein Mann wie Christo beispielsweise diese "kosmische Dimension" besitze.	1	4	9	8	4	26	3,38	1,08

Fortsetzung auf der nächsten Seite

EIN ZWEIFELSFALL

Fortsetzung Tabelle 1

	Sätze	Notenzahlen					MWS	VarS	
		1	2	3	4	5			total
2. s)	Clarisse zweifelt nicht, ob Ulrich sie wirklich liebt oder nur bewundert oder sie in Wahrheit nicht ausstehen kann.	1	4	6	9	3	23	3,39	1,11
1. q)	Maria zweifelt, dass sie Wein oder Käse zum Abendessen mitbringen soll.	1	5	7	8	5	26	3,42	1,24
2. g)	Hans zweifelt, ob 2 plus 2 ungleich 4 ist.	2	3	6	7	6	24	3,50	1,50
2. h)	Hans glaubt, ob 2 plus 2 ungleich 4 ist.	2	4	3	4	11	24	3,75	1,94
2. f)	Hans glaubt nicht, ob 2 plus 2 gleich 4 ist.	1	3	2	3	15	24	4,17	1,56

Tabelle 2: Ergebnisse der zweiten Gruppe (Sätze in zufälliger Reihenfolge)

	Sätze	Notenzahlen					MWS	VarS	
		1	2	3	4	5			total
30)	Maria zögert, ob sie die Einladung von Paul annehmen soll.	14	2	0	0	0	16	1,13	0,11
12)	Hans glaubt, dass 2 plus 2 gleich 4 ist.	14	0	1	0	0	15	1,13	0,25
3)	Hans glaubt nicht, dass 2 plus 2 gleich 4 ist.	15	0	0	0	1	16	1,25	0,94
32)	Maria zögert, welche Einladung sie annehmen soll.	12	3	1	0	0	16	1,31	0,34
29)	Niemand zweifelt, dass Maria und Paul heiraten werden.	11	4	0	1	0	16	1,44	0,62
26)	Clarisse zweifelt, ob Ulrich sie wirklich liebt oder nur bewundert oder sie in Wahrheit nicht ausstehen kann.	10	3	3	0	0	16	1,56	0,62
22)	Hans glaubt, dass 2 plus 2 ungleich 4 ist.	10	2	2	1	0	15	1,60	0,91
34)	Maria zweifelt, ob sie die Einladung von Paul annehmen soll.	12	1	1	1	1	16	1,63	1,48
24)	Paul zweifelt, ob Berlin in Zukunft besser regiert werden wird.	10	2	2	1	1	16	1,81	1,53
13)	Hans zweifelt nicht, dass 2 plus 2 gleich 4 ist.	7	5	2	0	1	15	1,87	1,18
46)	Maria zweifelt, welche Einladung sie annehmen soll.	10	1	3	1	1	16	1,88	1,61
28)	Woods zweifelt sehr, ob ein Mann wie Christo beispielsweise diese "kosmische Dimension" besitze.	7	3	3	2	0	15	2,00	1,20
37)	Maria zweifelt, welchen ihrer drei Liebhaber sie heiraten soll.	6	5	3	2	0	16	2,06	1,06
23)	Clarisse zweifelt, dass Ulrich sie wirklich liebt oder nur bewundert oder sie in Wahrheit nicht ausstehen kann.	6	5	4	0	1	16	2,06	1,18
17)	Maria zweifelt, ob sie Wein oder Käse zum Abendessen mitbringen soll.	9	2	2	1	2	16	2,06	2,06
31)	Maria zweifelt, dass Paul die Alpen zu Fuß überquert hat.	9	3	1	0	3	16	2,06	2,31
35)	Paul zweifelt, dass Berlin in Zukunft besser regiert werden wird.	6	5	3	1	1	16	2,13	1,36
6)	Paul zweifelt, welcher der beiden Kandidaten als Bürgermeister geeigneter ist.	5	6	3	1	1	16	2,19	1,28
14)	Woods zweifelt, dass ein Mann wie Christo beispielsweise diese "kosmische Dimension" besitze.	3	7	4	1	0	15	2,20	0,69
39)	Woods zweifelt, ob ein Mann wie Christo beispielsweise diese "kosmische Dimension" besitze.	7	3	1	3	1	15	2,20	1,89

Fortsetzung auf der nächsten Seite

<i>Fortsetzung Tabelle 2</i>									
	Sätze	Notenzahlen						MWS	VarS
		1	2	3	4	5	total		
25)	Hans zweifelt, dass 2 plus 2 gleich 4 ist.	7	2	3	1	2	15	2,27	2,06
16)	Woods zweifelt nicht, dass ein Mann wie Christo beispielsweise diese "kosmische Dimension" besitzt.	7	3	1	2	2	15	2,27	2,20
4)	Hans zweifelt, ob 2 plus 2 gleich 4 ist.	5	4	4	1	2	16	2,44	1,75
36)	Woods zweifelt, ob nicht ein Mann wie Christo beispielsweise diese "kosmische Dimension" besitzt.	4	4	4	3	1	16	2,56	1,50
27)	Clarisse zweifelt nicht, dass Ulrich sie wirklich liebt oder nur bewundert oder sie in Wahrheit nicht ausstehen kann.	4	4	3	2	2	15	2,60	1,84
9)	Hans zweifelt, dass 2 plus 2 ungleich 4 ist.	5	3	3	3	2	16	2,63	1,98
44)	Hans zweifelt, ob 2 plus 2 ungleich 4 ist.	6	2	1	3	3	15	2,67	2,62
8)	Woods zweifelt sehr, dass ein Mann wie Christo beispielsweise diese "kosmische Dimension" besitzt.	2	5	6	2	1	16	2,69	1,09
43)	Niemand zweifelt, ob Maria und Paul heiraten werden.	4	3	5	2	2	16	2,69	1,71
45)	Maria zweifelt, ob Paul die Alpen zu Fuß überquert hat.	5	4	2	1	4	16	2,69	2,46
19)	Clarisse zweifelt nicht, ob Ulrich sie wirklich liebt oder nur bewundert oder sie in Wahrheit nicht ausstehen kann.	3	2	9	0	2	16	2,75	1,31
42)	Woods zweifelt, dass ein Mann wie Christo beispielsweise diese "kosmische Dimension" nicht besitzt.	4	2	5	1	3	15	2,80	2,03
2)	Niemand zweifelt, wer für die Misere der Bankgesellschaft verantwortlich ist.	5	3	2	2	4	16	2,81	2,53
10)	Paul zweifelt, wer für die Misere der Bankgesellschaft verantwortlich ist.	4	1	6	3	2	16	2,88	1,73
40)	Woods zweifelt nicht, ob ein Mann wie Christo beispielsweise diese "kosmische Dimension" besitzt.	3	3	3	5	2	16	3,00	1,75
5)	Paul zweifelt nicht, wer für die Misere der Bankgesellschaft verantwortlich ist.	2	2	6	1	4	15	3,20	1,76
21)	Woods zweifelt, ob ein Mann wie Christo beispielsweise diese "kosmische Dimension" nicht besitzt.	2	3	2	4	4	15	3,33	1,96
7)	Paul zweifelt, wie sich das Klima verändern wird.	1	2	5	5	3	16	3,44	1,25
11)	Hans zweifelt nicht, ob 2 plus 2 gleich 4 ist.	3	0	4	3	5	15	3,47	2,12
41)	Woods zweifelt, dass nicht ein Mann wie Christo beispielsweise diese "kosmische Dimension" besitzt.	1	2	3	3	6	15	3,73	1,66
38)	Maria zweifelt, dass sie die Einladung von Paul annehmen soll.	0	5	0	3	7	15	3,80	1,76
18)	Maria zögert, dass sie die Einladung von Paul annehmen soll.	1	0	6	3	6	16	3,81	1,28
33)	Hans glaubt nicht, ob 2 plus 2 gleich 4 ist.	1	0	2	3	9	15	4,27	1,26
1)	Maria zweifelt, dass sie Wein oder Käse zum Abendessen mitbringen soll.	0	0	4	3	9	16	4,31	0,71
20)	Hans glaubt, ob 2 plus 2 ungleich 4 ist.	0	0	0	3	12	15	4,80	0,16

Fortsetzung auf der nächsten Seite

EIN ZWEIFELSFALL

<i>Fortsetzung Tabelle 2</i>									
	Sätze	Notenanzahlen					MWS	VarS	
		1	2	3	4	5			total
15)	Hans glaubt, ob 2 plus 2 gleich 4 ist.	0	0	0	2	13	15	4,87	0,12

Tabelle 3: Ergebnisse beider Gruppen vereinigt (Satzkennung wie in Tabelle 1)

	Sätze	Notenanzahlen					MWS	VarS	
		1	2	3	4	5			total
1. e)	Hans glaubt, dass 2 plus 2 gleich 4 ist.	26	10	5	0	0	41	1,49	0,49
1. k)	Niemand zweifelt, dass Maria und Paul heiraten werden.	20	15	4	2	1	42	1,79	0,93
2. j)	Maria zögert, ob sie die Einladung von Paul annehmen soll.	22	8	8	2	1	41	1,83	1,12
1. d)	Hans zweifelt nicht, dass 2 plus 2 gleich 4 ist.	18	10	11	1	1	41	1,95	1,02
1. f)	Hans glaubt nicht, dass 2 plus 2 gleich 4 ist.	24	7	4	2	5	42	1,98	1,93
3. d)	Maria zögert, welche Einladung sie annehmen soll.	15	15	8	2	1	41	2,00	0,98
2. i)	Maria zweifelt, ob sie die Einladung von Paul annehmen soll.	18	11	7	1	3	40	2,00	1,40
3. c)	Maria zweifelt, welche Einladung sie annehmen soll.	17	10	10	3	1	41	2,05	1,17
1. b)	Maria zweifelt, dass Paul die Alpen zu Fuß überquert hat.	15	14	9	0	4	42	2,14	1,41
2. r)	Clarisse zweifelt, ob Ulrich sie wirklich liebt oder nur bewundert oder sie in Wahrheit nicht ausstehen kann.	16	7	11	4	1	39	2,15	1,31
3. e)	Maria zweifelt, welchen ihrer drei Liebhaber sie heiraten soll.	13	12	12	3	1	41	2,20	1,08
2. a)	Paul zweifelt, ob Berlin in Zukunft besser regiert werden wird.	12	14	10	1	3	40	2,23	1,27
1. h)	Hans glaubt, dass 2 plus 2 ungleich 4 ist.	16	6	13	5	1	41	2,24	1,36
1. a)	Paul zweifelt, dass Berlin in Zukunft besser regiert werden wird.	8	15	15	3	1	42	2,38	0,90
3. a)	Paul zweifelt, welcher der beiden Kandidaten als Bürgermeister geeigneter ist.	10	16	5	5	4	40	2,43	1,59
2. q)	Maria zweifelt, ob sie Wein oder Käse zum Abendessen mitbringen soll.	12	12	5	4	6	39	2,49	1,99
1. l)	Woods zweifelt, dass ein Mann wie Christo beispielsweise diese "kosmische Dimension" besitze.	7	12	15	6	1	41	2,56	1,03
1. c)	Hans zweifelt, dass 2 plus 2 gleich 4 ist.	14	5	10	6	5	40	2,58	1,99
2. l)	Woods zweifelt, ob ein Mann wie Christo beispielsweise diese "kosmische Dimension" besitze.	10	10	7	10	2	39	2,59	1,58
1. n)	Woods zweifelt nicht, dass ein Mann wie Christo beispielsweise diese "kosmische Dimension" besitze.	9	11	11	7	3	41	2,61	1,46
2. m)	Woods zweifelt sehr, ob ein Mann wie Christo beispielsweise diese "kosmische Dimension" besitze.	10	7	10	8	3	38	2,66	1,65
2. b)	Maria zweifelt, ob Paul die Alpen zu Fuß überquert hat.	9	11	9	7	5	41	2,71	1,72
1. m)	Woods zweifelt sehr, dass ein Mann wie Christo beispielsweise diese "kosmische Dimension" besitze.	7	9	14	11	1	42	2,76	1,18

Fortsetzung auf der nächsten Seite

Fortsetzung Tabelle 3									
	Sätze	Notenanzahlen						MWS	VarS
		1	2	3	4	5	total		
2.o)	Woods zweifelt, ob nicht ein Mann wie Christo beispielsweise diese "kosmische Dimension" besitze.	6	10	11	10	2	39	2,79	1,29
3.f)	Paul zweifelt, wer für die Misere der Bankgesellschaft verantwortlich ist.	7	10	11	9	4	41	2,83	1,51
1.g)	Hans zweifelt, dass 2 plus 2 ungleich 4 ist.	8	7	14	10	3	42	2,83	1,42
3.g)	Paul zweifelt nicht, wer für die Misere der Bankgesellschaft verantwortlich ist.	6	11	10	9	4	40	2,85	1,48
2.c)	Hans zweifelt, ob 2 plus 2 gleich 4 ist.	11	9	6	5	10	41	2,85	2,37
1.r)	Clarisse zweifelt, dass Ulrich sie wirklich liebt oder nur bewundert oder sie in Wahrheit nicht ausstehen kann.	8	10	10	8	6	42	2,86	1,74
2.k)	Niemand zweifelt, ob Maria und Paul heiraten werden.	9	9	7	8	7	40	2,88	2,01
3.b)	Paul zweifelt, wie sich das Klima verändern wird.	6	12	8	7	7	40	2,93	1,77
1.p)	Woods zweifelt, dass ein Mann wie Christo beispielsweise diese "kosmische Dimension" nicht besitze.	5	10	13	8	5	41	2,95	1,41
3.h)	Niemand zweifelt, wer für die Misere der Bankgesellschaft verantwortlich ist.	9	5	10	10	6	40	2,98	1,87
1.s)	Clarisse zweifelt nicht, dass Ulrich sie wirklich liebt oder nur bewundert oder sie in Wahrheit nicht ausstehen kann.	4	13	9	7	8	41	3,05	1,66
2.d)	Hans zweifelt nicht, ob 2 plus 2 gleich 4 ist.	11	3	8	7	10	39	3,05	2,41
2.s)	Clarisse zweifelt nicht, ob Ulrich sie wirklich liebt oder nur bewundert oder sie in Wahrheit nicht ausstehen kann.	4	6	15	9	5	39	3,13	1,29
1.i)	Maria zweifelt, dass sie die Einladung von Paul annehmen soll.	3	13	7	10	8	41	3,17	1,60
2.g)	Hans zweifelt, ob 2 plus 2 ungleich 4 ist.	8	5	7	10	9	39	3,18	2,10
2.n)	Woods zweifelt nicht, ob ein Mann wie Christo beispielsweise diese "kosmische Dimension" besitze.	3	9	11	10	7	40	3,23	1,42
2.p)	Woods zweifelt, ob ein Mann wie Christo beispielsweise diese "kosmische Dimension" nicht besitze.	3	9	6	12	8	38	3,34	1,59
1.j)	Maria zögert, dass sie die Einladung von Paul annehmen soll.	3	5	13	12	9	42	3,45	1,34
1.o)	Woods zweifelt, dass nicht ein Mann wie Christo beispielsweise diese "kosmische Dimension" besitze.	2	6	12	11	10	41	3,51	1,32
1.q)	Maria zweifelt, dass sie Wein oder Käse zum Abendessen mitbringen soll.	1	5	11	11	14	42	3,76	1,23
2.e)	Hans glaubt, ob 2 plus 2 gleich 4 ist.	5	4	2	5	23	39	3,95	2,20
2.h)	Hans glaubt, ob 2 plus 2 ungleich 4 ist.	2	4	3	7	23	39	4,15	1,51
2.f)	Hans glaubt nicht, ob 2 plus 2 gleich 4 ist.	2	3	4	6	24	39	4,21	1,45

C Wahrscheinlichkeitstheoretische Begriffe

Der Bequemlichkeit halber führen wir hier die Definitionen der in Abschnitt 3.2 verwendeten Begriffe σ -Algebra und *Wahrscheinlichkeitsmaß* an.⁴⁶ Sei Ω eine beliebige Menge.

Definition 4 Eine Menge \mathcal{F} von Teilmengen von Ω heißt eine σ -Algebra (in Ω) genau dann, wenn gilt:

- (i) $\Omega \in \mathcal{F}$,
- (ii) \mathcal{F} ist abgeschlossen unter Komplementbildung, d. h. aus $A \in \mathcal{F}$ folgt $\sim A \in \mathcal{F}$,
- (iii) \mathcal{F} ist abgeschlossen unter abzählbaren Vereinigungen, d. h. für jede Folge $(A_n)_{n \in \mathbb{N}}$ von Mengen aus \mathcal{F} ist $\bigcup_{n=1}^{\infty} A_n \in \mathcal{F}$.

Fordert man an Stelle der dritten Bedingung von \mathcal{F} nur Abgeschlossenheit unter endlichen Vereinigungen, so hat man die Definition einer Booleschen Algebra. Zwei (extreme) Beispiele für σ -Algebren in Ω sind die Systeme $\{\emptyset, \Omega\}$ und $\wp(\Omega)$.

Ist \mathcal{F} eine σ -Algebra und $A \subseteq \Omega$, so bedeutet A ist \mathcal{F} -messbar, dass $A \in \mathcal{F}$.

Definition 5 Ein Wahrscheinlichkeitsmaß P auf einer σ -Algebra \mathcal{F} (in Ω) ist eine Abbildung $P : \mathcal{F} \rightarrow [0, 1]$ so, dass gilt:

- (i) $P(\Omega) = 1$,
- (ii) P ist σ -additiv, d. h. für jede Folge $(A_n)_{n \in \mathbb{N}}$ von paarweise disjunkten Mengen aus \mathcal{F} ist
$$P\left(\bigcup_{n=1}^{\infty} A_n\right) = \sum_{n=1}^{\infty} P(A_n).$$

Handelt es sich bei \mathcal{F} nur um eine Boolesche Algebra, so fordert man in der zweiten Bedingung der Definition 5 von P statt σ -Additivität nur „endliche Additivität“.

Man beachte, dass mit P Wahrscheinlichkeitsmaß $P(\emptyset) = 0$, d. h. das P -Maß der leeren Menge, die ja in jeder σ -Algebra enthalten ist, ist null.

D Datenquellen

Die in den Abschnitten 2.1, 2.3 und 2.4 vorgestellten Korpusdaten stammen aus den folgenden Quellen:

1. Korpora geschriebener Gegenwartssprache, Institut für Deutsche Sprache (IDS), Mannheim, <http://www.ids-mannheim.de/>.
2. Das Deutsche Wörterbuch von Jacob und Wilhelm Grimm auf CD-ROM und im Internet, Universität Trier, <http://www.dwb.uni-trier.de/>.
3. Das Bonner Frühneuhochdeutschkorpus, Institut für Kommunikationsforschung und Phonetik der Universität Bonn, <http://www.ipk.uni-bonn.de/dt/forsch/fnhd/>.
4. Mittelhochdeutsche Begriffsdatenbank (MHDBDB), Institut für Germanistik der Paris Lodron Universität Salzburg, <http://mhdbdb.sbg.ac.at:8000/index.de.html>.
5. British National Corpus (BNC), Oxford University, <http://www.hcu.ox.ac.uk/BNC/>.

⁴⁶ Die hier zitierten Definitionen finden sich z. B. in Heinz Bauer (1992): *Maß- und Integrationstheorie*. Walter de Gruyter, Berlin / New York.

Literatur

- Adger, David and Josep Quer (2001): The Syntax and Semantics of Unselected Embedded Questions. *Language*, 77, 107–133.
- Baayen, R. Harald (2001): *Word Frequency Distributions*. Dordrecht: Kluwer Academic Publishers.
- Bard, Ellen Gurman, Dan Robertson, and Andrea Sorace (1996): Magnitude Estimation of Linguistic Acceptability. *Language*, 72, 32–68.
- Bäuerle, Rainer and Thomas Ede Zimmermann (1993): Fragesätze. In: D. Wunderlich and A. von Stechow (eds.): *Handbuch Semantik*, pp. 333–348. Berlin / New York: Walter de Gruyter.
- Eisenberg, Peter (1999): *Grundriss der deutschen Grammatik. Band 2: Der Satz*. Stuttgart / Weimar: J. B. Metzler.
- Ginzburg, Jonathan (1996): Interrogatives: Questions, Facts and Dialog. In: S. Lappin (ed.): *The Handbook of Contemporary Semantic Theory*, pp. 385–422. Oxford: Blackwell.
- Ide, Nancy and Jean Véronis (1998): Word Sense Disambiguation: The State of the Art. *Computational Linguistics*, 24, 1–40.
- Karttunen, Lauri (1977): Syntax and semantics of questions. *Linguistics and Philosophy*, 1, 3–44.
- Kennedy, Graeme D. (1998): *An Introduction to Corpus Linguistics*. London / New York: Longman.
- Kiparsky, Paul and Carol Kiparsky (1970): Fact. In: M. Bierwisch and K. E. Heidolph (eds.): *Progress in Linguistics*, pp. 143–173. The Hague: Mouton.
- Krifka, Manfred (2001): For a Structured Meaning Account of Questions and Answers. In: C. Féry and W. Sternefeld (eds.): *Audiat Vox Sapientiae. A Festschrift for Achim von Stechow*, pp. 287–319. Berlin: Akademie Verlag.
- Merin, Arthur (1999): Information, Relevance, and Social Decisionmaking: Some Principles and Results of Decision-Theoretic Semantics. In: L. S. Moss, J. Ginzburg, and M. de Rijke (eds.): *Logic, Language, and Computation*, vol. 2, pp. 179–221. Stanford: CSLI Publications.
- Rooth, Mats (1992): A Theory of Focus Interpretation. *Natural Language Semantics*, 1, 75–116.
- van Rooy, Robert (2001): Questioning to resolve decision problems. Accepted for publication in *Linguistics and Philosophy*.

Focus Marking in Kikuyu

Florian Schwarz
Humboldt-Universität zu Berlin / ZAS Berlin

Kurzbeschreibung der Arbeit

Im Kikuyu, einer in Kenia gesprochenen Bantusprache, wird Fokus systematisch durch Wortstellung markiert. In dieser Arbeit werden die verschiedenen Varianten der Markierung von Fokus in Frage-Antwortsequenzen dargestellt. Nach einem Überblick über in der Literatur vorhandene Diskussionen des Phänomens wird auf der Grundlage von mit einem Muttersprachler erhobenen Daten eine syntaktische Analyse von Fokuskonstruktionen mit der Partikel *ne* vorgeschlagen. Ferner werden neue Daten zur Fokussierung verschiedener Satzteile, z.B. der VP, des ganzen Satzes und des Wahrheitswerts, präsentiert. Ziel der Arbeit ist somit, die deskriptive Datenbasis zu Fokuskonstruktionen im Kikuyu zu erweitern und einen theoretischen Beitrag zu ihrer Analyse im Rahmen der generativen Grammatik zu liefern.

Die Arbeit wurde im Sommer 2003 als Magisterarbeit an der Humboldt-Universität zu Berlin, Institut für deutsche Sprache und Linguistik, angenommen.

Abstract

In Kikuyu, a Bantu language spoken in Kenya, focus is marked systematically by means of word order. In this study, the different possibilities for marking focus in question answer sequences are presented. After an overview of the discussions of the phenomenon in the literature, a syntactic account for focus constructions with the particle *ne* is proposed. This account is based on original data that was gathered with a native speaker. In addition, new data on focusing different parts of the sentence, e.g. the VP, the entire sentence, or the truth-value, are presented. The aim of this study thus is to broaden the descriptive basis for focus constructions in Kikuyu and to provide a theoretical contribution to their analysis in the framework of generative grammar.

Abbreviations

The following abbreviations are frequently used throughout this study:

APPL	=	Applicative	PP	=	Pronominal Prefix
ASP	=	Aspect			(in interlinear translations)
ASS	=	Associative	Sg.	=	Singular
CAUS	=	Causative	SM	=	Subject Marker
COP	=	Copula	T	=	Tense
DEM	=	Demonstrative	TopP	=	Topic Phrase
FM	=	Focus Marker	VS	=	Verb Stem
FP	=	Focus Phrase			
FV	=	Final Vowel			
		(of the verbal complex)			
HAB	=	Habitual			
INF	=	Infinitive			
LOC	=	Locative			
OM	=	Object Marker			

Contents

1	<i>Introduction</i>	44
1.1	Background	44
1.2	Source of the Data	44
1.3	Some Kikuyu Basics and Notational Conventions	44
1.4	Structure	47
2	<i>Theories of Focus</i>	47
2.1	Terminology	47
2.2	Focus and Accent	48
2.3	Bound vs. Free Focus	49
2.4	The Meaning of Focus	49
2.5	Syntactic Focus Constructions	50
2.6	Fieldwork on Focus – Question-Answer Congruence	52
3	<i>The Morphosyntax of Focus in Kikuyu</i>	53
3.1	Basic Data	53
3.1.1	The Puzzling Particle <i>ne</i>	54
3.1.2	Simple Questions and Answers	55
3.1.3	Summary	58
3.2	Early Comments on <i>ne</i>	59
3.2.1	Barlow, Armstrong, and Benson.....	59
3.2.2	Myers	61
3.3	Clements vs. Bergvall – Focus Marker or Cleft?	62
3.3.1	Against <i>ne</i> as a Copula.....	62
3.3.2	Clements (1984).....	63
3.3.2.1	<i>Morphological Changes</i>	64
3.3.2.2	<i>Syntactic Constraints</i>	65
3.3.2.3	<i>Analysis of preposed Focus constructions and wh-questions</i>	66
3.3.2.4	<i>Analysis of Relative Clauses</i>	67
3.3.2.5	<i>Open Clauses</i>	68
3.3.2.6	<i>Summary</i>	69
3.3.3	Bergvall (1987).....	69
3.3.3.1	<i>ne in INFL</i>	69
3.3.3.2	<i>Cleft-Analysis of Preposed ne-Focus</i>	70
3.3.3.3	<i>Pleonastic Subjects and Clefts in Dependent Clauses</i>	71
3.3.3.4	<i>Biclausal ne-Constructions</i>	72
3.3.3.5	<i>Ne as an Assertion Marker</i>	73
3.3.3.6	<i>No ne in Dependent Clauses</i>	74
3.3.3.7	<i>Summary</i>	74
3.3.4	Clefts or Focus Phrases?	75
3.3.4.1	<i>Problems of Clements’ Account</i>	75
3.3.4.2	<i>Problems of Bergvall’s Account</i>	76
3.3.4.3	<i>Conclusion</i>	77
4	<i>New Evidence and a New FP-Analysis</i>	77
4.1	Arguments Against Analyzing Focal <i>ne</i>-Constructions as Clefts	77

CONTENTS

4.1.1	Topicalization and Focus Constructions.....	78
4.1.1.1	<i>Simple Topicalizations and/or Left Dislocations</i>	78
4.1.1.2	<i>Restriction for Topicalization</i>	79
4.1.1.3	<i>Topicalization and ne-Focus</i>	81
4.1.1.4	<i>Conclusion</i>	82
4.1.2	Locative Focus and an Alternative Focus-Construction.....	82
4.1.3	Multiple Wh-Questions.....	84
4.2	A New Account of Focus Constructions in Kikuyu.....	85
4.2.1	Syntactic Focus Marking in Kikuyu.....	85
4.2.2	Object Focus.....	89
4.2.2.1	<i>Transitive Verbs</i>	89
4.2.2.2	<i>Ditransitive Verbs</i>	90
4.2.3	Subject Focus.....	91
4.2.4	VP-Focus.....	92
4.2.4.1	<i>Intransitive Verbs</i>	92
4.2.4.2	<i>Transitive Verbs</i>	93
4.2.4.3	<i>Ditransitive Verbs</i>	95
4.2.5	Verb Focus.....	95
4.2.5.1	<i>Intransitive Verbs</i>	95
4.2.5.2	<i>Transitive Verbs</i>	96
4.2.6	Sentence Focus and Verum Focus – The Case of Preverbal <i>ne</i>	96
4.2.7	Focus and Copula Constructions – A Possible Reanalysis.....	100
4.2.8	Focus on other Elements.....	104
4.2.9	Contrastive Focus.....	105
4.2.10	An Alternative Focus Construction.....	105
4.3	Summary.....	106
5	<i>Loose Ends</i>.....	107
5.1	Further Issues for the New Analysis.....	107
5.1.1	Morphological Effects of <i>ne</i> -Focus.....	107
5.1.2	The Absence of <i>ne</i> in Certain Tenses.....	108
5.1.3	Negation.....	108
5.1.4	Alternative Questions.....	109
5.2	Semantic Issues.....	109
5.3	Tonal Issues.....	112
6	<i>Conclusion</i>.....	114
	<i>Acknowledgements</i>.....	115
	<i>References</i>.....	115

1 Introduction

1.1 Background

Languages employ different means to express categories of information structure, such as topic and focus. Recently, there has been increasing theoretical interest in how this is done and substantial amounts of research on typologically different languages have been carried out. The present study would like to contribute to this research by taking a close look at how information structure is expressed in the Bantu language Kikuyu. In particular, it presents data collected with a native speaker of Kikuyu that illustrates how focus is marked in Kikuyu sentences. The first goal of this work then is to present an overview of focus constructions in Kikuyu, and thereby to broaden the empirical basis for research on information structure in different languages. The second goal is to discuss theoretical analyses for these data. Previous descriptions and proposals of analysis are presented, and an attempt is made to develop a refined theoretical account. The general background for these theoretical considerations is that of generative grammar in the Chomskyan tradition.

In the next sections, I provide information about the source of the data, some basic facts about Kikuyu, and an overview of the structure of the following chapters.

1.2 Source of the Data

Most of the data discussed in the following chapters has been collected with the help of an informant, Sam Kinuthia (age: 36), a native speaker of Kikuyu. He grew up in the town of Kandani in the central Kenyan province of Murang'a. Apart from Kikuyu, he also is fluent in Swahili, English, German, and Russian, and works as a translator for German legal courts. The data gathering meetings took place at the Humboldt University and at the ZAS in Berlin. Communication during the meetings took place in German and English. Data presented in the following that lacks a reference is original data collected with the informant.

Further data that has been included stems from the linguistic literature on Kikuyu, which is not very extensive. There are a few traditional, descriptive works: Barlow's *Studies in Kikuyu Grammar and Idiom* (1951), a resourceful and detailed descriptive grammar including a textbook section with lessons for learning Kikuyu; Benson (1964), a Kikuyu-English dictionary; and Armstrong (1940), a very detailed descriptive account of *The phonetic and tonal structure of Kikuyu*. The main source of examples, here as well as in recent literature on Kikuyu, is Barlow's grammar. More recent work that is relevant for this study mainly consists of a number of articles by N. Clements (Clements (1984), (1984a)) and V. Bergvall (Bergvall (1983), (1986), (1987), (1987a)). Both have collected data of their own, some of which will be introduced in the sections on their work. The recent descriptive work by Mugane (1997) also is a helpful resource for an overview of Kikuyu.

1.3 Some Kikuyu Basics and Notational Conventions

Kikuyu is spoken in the central-southern regions of Kenya (Mugane 1997: 1), and belongs to the Bantu language family. In the classification system of Guthrie (1967) it is part of Zone E and labeled E51. In this section, I give a brief overview of a few central features of the grammatical structure of Kikuyu, which is primarily aimed at readers that are not familiar with Bantu languages. I also introduce some conventions for the presentation of the data. For more detailed information, the reader is referred to the available grammars, in particular to Barlow (1951) and Mugane (1997).

Concerning the phonological representation, I use a modified version of the IPA-system that is similar to the one used in Bergvall (1987). The modifications have been made to make the data more easily accessible to the informant. The correspondences between the notation used here and the Kikuyu orthography are as follows:

(1) a. **Vowels**

<u>IPA</u>	<u>Kikuyu Orthography</u>
i	i
u	u
e	ĩ
o	ũ
ɛ	e
ɔ	o
a	a

b. **Consonants**

<u>Modified IPA</u>	<u>Kikuyu Orthography</u>
t	t
k	k
mb	mb
nd	nd
ng	ng
β	b
ð	d
g	g
m	m
n	n
ny	ny
ŋ	ng'
nj	nj
c	c
h	h
r	r
y	y
w	w

The voiced stops are prenasalized, although it is not always easy to actually hear this nasalization. Since this is reflected in Kikuyu orthography, I kept the [n] and [m] preceding the voiced stops in my notation. Ny and nj are also retained to stay close to the orthography.

There are several rules of vowel coalescence in Kikuyu. These are important here as far as they obscure the morphological structure at times, for example when a subject marker is merged with a tense prefix. The following is a list of the most important ones of these processes (Clements 1984: 41):

- (2) a. au → ɔi
 b. aɔ → ɔɔ
 c. ae → ɛɛ
 d. oɔ → wɔɔ
 e. ou → uu

Kikuyu is a tone language, i.e. there are lexical items that are only distinguished by tone. The following is an example from Mugane (1997: 14):

- (3) a. ǎra 'underestimate'
 b. irǎ 'snow'
 c. ira 'yesterday'

Vowels without a tone marker bear low tone, vowels marked [ˈ] bear high tone, and vowels marked [ˊ] bear rising tone. According to Ford (1975) and Clements (1984b: 281) there are two underlying tones in Kikuyu, High and Low, as well as a phonemic downstep. The tonal phonology of Kikuyu is extremely complex. A Theoretical account within autosegmental phonology is provided by Clements (1984a), and there are several other earlier theoretical works, for example Pratt (1972), Ford (1975), Clements and Ford (1979) and (1981). Also, as already mentioned, Armstrong (1940) provides detailed descriptions of tonal phenomena.

Tone is not a central topic in this work, although there are interesting questions related to the interaction of focus and tone. Some considerations in this regard are presented in section 5.3 in chapter 5. I did try to find possible interactions between focus and tone, but I could not determine any clear correlations between tonal phenomena, such as tone sandhi, and focus (which, of course, does not mean that there are none). Therefore, this topic is only treated marginally in this work, and tone is not marked except in examples from the literature that do indicate tone.¹

¹ A further complication for research on tone is that there seem to be differences between dialects. Hence it is not clear whether the findings by Clements and Ford can be fully generalized, and it seems like

A central feature of Kikuyu morphology is the verbal complex that can take several affixes, including a subject marker and an optional object marker, temporal and aspectual prefixes and suffixes, as well as applicative and causative morphemes. The following list of morphemes, taken from Bergvall (1987: 21), illustrates the richness of verbal morphology:

- (4)
- a. Assertion or Focus Marker (FM): *ne*
 - b. Subject Marker (SM)
 - c. Tense Marker (T): -a-, -ra-, -ko-, -Ø-, -re-, -ka-
 - d. Object Marker (OM)
 - e. Reflexive Marker (REFL): -e-
 - f. Verb Stem (VS)
 - g. Applicative suffix (APPL): -er-
 - h. Aspect Marker (ASP): -ir-, -ay-, -et-
 - i. Causative Marker (CAUS): -i-
 - j. Passive suffix (PASS): -wɔ (and variants)
 - k. Final Vowel (FV): Indicative -a or Subjunctive -ε

This list is given in the order in which the morphemes appear in the verbal complex, and the underlined morphemes are normally obligatory. The exact status and function of the verb initial particle *ne* will be a central issue in the following chapters. Bergvall (1987) argues that it is a marker of assertion, and I (along with Clements (1984)) will argue that it is a focus marker.

As most other Bantu languages, Kikuyu has a complex noun class system that consists of 17 classes (Mugane 1997: 26). They roughly represent semantic groups like humans (class 1 and 2 – there is a singular and a plural class for each group) or abstract concepts (class 14). Nouns come with a class prefix, and the subject is marked on the verb with a concord marker that depends on the class of the subject noun. While the subject marker appears both with and without an overt NP in subject position, the object marker can only appear when there is no overt full object NP. Therefore, the object marker can be regarded as fully pronominal.

The basic word order in the Kikuyu sentence is SVO (Mugane 1997: 141). A simple sentence with a transitive verb usually looks like the following:

- (5)
- a. Kamau (ne)-ɔɔn-ir-ε Njeri
 - K. (FM)-(SM)-see-ASP-FV N.
 - Kamau saw Njeri.

Kikuyu examples are given in the format of (5), with an interlinear translation and a (sometimes rough) English translation. Proper names are indicated by their initial in the glosses. The particle *ne*, which is labeled *FM* for *focus marker*, is optional, although its presence or absence does make a difference in meaning. Just what this difference is will be discussed in chapters 3 and 4. The subject marker for class 1 (to which *Kamau* as a proper name for humans belongs) normally is -a-, but it is merged here with the initial vowel of the verb stem, following the vowel coalescence process described above in (2b). In such cases, I will put '(SM)' in brackets, since the subject marker is not as clearly visible.

In more complex sentences, the word order generally follows the pattern Subject < Indirect or Direct Object (Human) < Direct Object (Nonhuman) < Target Locative < Manner Adverbial < Setting Locative < Time Adverbial (Bergvall 1987a: 39-40). Although it may seem at first sight that the word order in Kikuyu is fairly rigid, there are several possibilities for word order

there was at least some data from my informant that did not match their findings. Since questions related to the interaction of focus and tone require an in-depth understanding of the tonal phonology, it seemed beyond the scope of this work to include a detailed theoretical discussion of such questions.

variation, as will be seen in the discussion of the data in the following chapters. These variations are of central concern, and will be discussed in detail in chapter 3 and 4, where further details about Kikuyu syntax will be presented.

1.4 Structure

The following chapters are organized as follows. In Chapter 2, I give a brief overview of some important concepts in the theory of focus. In Chapter 3, I present the basic Kikuyu data that illustrates focus marking in questions and answers, and I discuss previous proposals for the analysis of these data. In particular, I compare the accounts by Clements (1984) and Bergvall (1987). This leads to the question whether preposed focus constructions with the particle *ne* are best analyzed as cleft-sentences (Bergvall) or rather as examples of a syntactic focus phrase (Clements). In chapter 4, I present some new data that speak against the cleft-analysis. These data are related to topicalized elements in combination with preposed focused elements, as well as to locatives in focus and multiple *wh*-questions. On the basis of this data, I develop a revised version of the focus phrase analysis. Finally, I present a wider range of data with different parts of the sentence in focus, which seem to fit into the proposed analysis. In chapter 5, I discuss further issues and open questions in relation to the analysis proposed in chapter 4. These include further syntactic issues, but also semantic and tonal ones. Chapter 6 gives a summary of the main results.

2 Theories of Focus

Focus, as a term in the theory of information structure, generally refers to the most prominent part of a sentence. The way in which this prominence is realized differs across languages. In generative theory, focus has been studied extensively in languages that use pitch accents to mark focus, beginning with Chomsky (1970) and Jackendoff (1972). From the 1980s on, there also has been extensive research on languages that have a structural position in the sentence to mark focus, in particular on Hungarian (cf. Szabolcsi 1981, Horvath 1986, Kiss 1987).² In this chapter, I want to give a basic overview of important concepts employed in theories of focus. The main goal is to provide a theoretical basis and a motivation for the method employed to look at focus marking in Kikuyu in the following chapters, which is that of question answer congruence.

2.1 Terminology

In recent decades, large amounts of literature have been devoted to the study of phenomena related to information structure. Unfortunately, the terminology in the field is often confusing, with different authors using different terms while meaning roughly the same, and yet other authors using the same terms but meaning something different. The following list of pairs of terms from Büring (1997: 29) illustrates the diversity in terminology in the field:

(6)	Background	Focus
	Topic	Comment
	(Psychological) Subject	(Psychological) Predicate
	Theme	Rheme
	Presupposition	Focus
	Satzgegenstand	Satzaussage
	Given	New
	Old	New

² For a recent overview of the historical development of theories of focus, see Rebuschi and Tuller (1999).

In this work, I will be using the first pair of terms, and primarily will be talking about focus. The following sections will try to provide an idea of what is meant by the dichotomy of focus and background.

2.2 Focus and Accent

It is a well-known phenomenon that sentences identical in word order are appropriate in different contexts due to a difference in accent placement. For example, (7b) is a good answer to the question in (7a), while (7c) is not. The same pattern holds in German in (8):

- (7) a. Who did Mary kiss?
 b. Mary kissed JOHN.³
 c. # MARY kissed John.
- (8) a. Wen hat Maria geküsst?
 b. Maria hat HANS geküsst.
 c. # MARIA hat Hans geküsst.

JOHN (HANS), in the (b)-examples, is the focus of the sentence. Generally, the part of the sentence that is not the focus is called the background. We can roughly characterize the notion focus here as the part of a sentence that provides the answer to the question that was asked in (a). Similarly, focus is often characterized as ‘what is new or unexpected in a sentence’ (Büring 1997: 29).

Jackendoff (1972) introduced the syntactic feature [F], which marks the focus of a sentence in the syntactic representation. This abstract feature is helpful to capture the fact that the relation between accent and focus is not one to one. The accent placement in the (b)-examples, for example, can indicate different foci. Therefore, these sentences are structurally ambiguous. They could also mark the entire VP as focus (9b), or even the entire sentence (9c). The according questions would be *What did Mary do?* for (b), and *What happened?* for (c):

- (9) a. Mary kissed [JOHN]_F
 b. Mary [kissed JOHN]_F
 c. [Mary kissed JOHN]_F

Nonetheless, the accent placement and intonation is the same in all of these. To distinguish between the word that contains the accented syllable and the part of the sentence marked by the syntactic feature [F], we call the former the *focus exponent*, while the latter is simply referred to as *focus*. Hence, when I will be talking about focus in the following, I do not just mean the accented word, but rather the part of the sentence that constitutes the focus.

The ambiguity illustrated in (9) leads to the question of what rules govern **focus projection**, i.e. the question of how focus and focus exponent are related. This question can be asked in two different ways (Büring 1997: 44-45): We can ask how one can determine the different focus-background divisions of a sentence, given a certain main accent. Or, alternatively, we can ask where to put the main accent, given a certain syntactic structure with the feature [F] on a part of the sentence.

It would go beyond the scope of this overview to discuss any details of the large amounts of research that have tried to answer this question. One of the major claims that has been put forward in trying to answer the second formulation of the question is that in head argument structures that are F-marked, the accent will usually go onto the argument (cf. Selkirk (1984) for English, and von Stechow and Uhmman (1986) for German).

³ The syllable bearing the nuclear pitch accent, i.e. the syllable that is perceived as most prominent in intonation, is written in capital letters, as is common in the literature.

Another type of examples in which accent plays a role is often referred to as *contrastive focus*. Typically, this involves a refutation of some sort, correcting a part of a sentence that already was given in the context:

- (10) a. Hat Paul Maria geküsst?
 b. Nein. HANS hat Maria geküsst.
- (11) a. Did Paul kiss Mary?
 b. No. JOHN kissed Mary.

Some theories of focus take such occurrences to be different from the ones exemplified in (7) and (8) (see also the discussion below on Hungarian), while others try to account for both cases in a uniform manner. I will mainly discuss focus in question answer sequences, and therefore will mostly ignore this issue.

2.3 Bound vs. Free Focus

In addition to the type of examples we have seen so far, which is often labeled as free focus, there also are examples where the focus stands in a particular relation with an operator. Such occurrences are usually referred to as bound focus. Operators that are sensitive for focus include *only*, *also*⁴, *even*, *must*, *not*, and *always*. In cases of bound focus, there can be differences in truth conditions in addition to the differences in contextual adequacy that we saw for free focus. Compare the following examples:

- (12) a. John only kissed MARY.
 b. John only KISSed Mary.

The differences between these two become clear when we consider possible paraphrases. (12a) is true if the only person that John kissed is Mary, whereas (12b) is true if all that John did with Mary was to kiss her.

In this work, I will (almost) exclusively talk about free focus, and therefore will not go into the details of bound focus here. It should be noted that some theories consider free focus to be a special case of bound focus, where the binding operator in such cases would be an invisible illocutionary operator (cf. Jacobs 1984; von Stechow 1990; Krifka 1992).

2.4 The Meaning of Focus

All we have said so far about the meaning of focus is that it marks what is new or unexpected, or that it supplies the answer for the *wh*-word in a question. This notion of focus as new information is also reflected in the table of terms in (6) (e.g. *New* vs. *Given*), and it is one of the major approaches to the meaning of focus. The other approach relates focus to sets of alternatives, an idea that immediately becomes clear when considering the examples in (10), where the difference between (a) and (b) clearly lays in the different alternative situations that are excluded by *only*. So the alternatives in (a) would consist of other entities (or people, if we build in reasonable contextual restriction of the alternatives) that Mary could have kissed, and in (b) the alternatives range over relations between Mary and John. This idea of focus introducing sets of alternatives is the basis of an elaborate semantic theory of focus, usually referred to as Alternative Semantics (cf. Rooth 1985, 1992).

A common assumption that is based on the idea of the focus contributing something new is that the background (i.e. the part of the sentence that is not focus) is already presupposed in the context of the utterance. In the examples in (9) this would mean that in (9a) it was known to the discourse participants prior to the utterance that John kissed somebody, and in (9b) that John did something with Mary. This means that in question answer sequences, the background of the answer should be identical to (or be entailed by) the presupposition of the question. Another

⁴ See König (1991) for an extensive coverage of focus sensitive particles.

semantic theory of focus, the Structured Meaning approach (cf. von Stechow 1981, 1990, Jacobs 1984, Krifka 1992, 2001) transfers the partition into focus and background directly into the semantic representation, thereby creating a more expressive framework for representing questions and answers (cf. von Stechow 1990 and Krifka 2001). Answers to a question must then fulfill the requirement that their background meaning is identical to the question meaning. The details of the different semantic proposals for the analysis of focus would go beyond this short overview. What is important is that semantic analyses of focus posit an extra level of meaning (an alternative or focus meaning in the case of Alternative Semantics and a structured meaning, split into focus and background, in case of the Structured Meaning approach) which allows for a fairly straightforward theoretical relation between questions and focus in answers to them.

A further important distinction that is made in relation to the meaning of focus is that between *Contrastive Focus* vs. *Presentational Focus*, or, alternatively between *Identificational Focus* vs. *Information Focus*. While some theories of focus do not (or at least not explicitly) distinguish between these different types of focus, Kiss (1998) argues that there is an important difference between these two types. In some languages, for example in Hungarian, this distinction is also reflected in different syntactic distributions. The difference in meaning primarily lies in the presence or absence of exhaustivity:

“An **identificational focus** represents a subset of the set of contextually or situationally given elements for which the predicate phrase can potentially hold; it is **identified as the exhaustive subset** of this set for which the predicate actually holds. [...] If a sentence part conveys new, nonpresupposed information marked by one or more pitch accents – **without expressing exhaustive identification** performed on a set of contextually or situationally given entities, it is not an identificational focus but a mere **information focus**” (Kiss 1998: 245-246; emphasis by F.S.)

This distinction is reflected in Hungarian syntax, as these different types of focus are realized in different syntactic positions (Kiss 1998: 249):

- (13) a. Mari **egy kalapot** nézett ki magának.⁵
 Mary a hat.ACC picked out herself
 It was **a hat** that Mary picked for herself
- b. Mari ki nézett magának EGY KALAPOT.
 Mary picked for herself A HAT.

According to Kiss, (13a) clearly implies a situation where Mary was choosing one from different pieces of clothing (and none of the others), while (13b) does not convey such alternatives, but merely presents new information. The conclusions that are drawn from the different word orders in these examples will be presented in the next section, where syntactic means for marking focus are discussed.

2.5 Syntactic Focus Constructions

Except for the Hungarian example (which we will come back to shortly) in the last section, focus has been determined in the examples we have considered so far through the placement of accent. There is, however, another grammatical tool for focusing, namely that of putting the focused element in a syntactically prominent position (this is often combined with putting an accent on the focused element). In languages like German and English, the most common way to do this is by ways of a cleft-construction:

- (14) a. It is a **BOOK** that John gave to Mary.
 b. Es ist ein **BUCH**, das Hans Maria gegeben hat.

⁵ Kiss typographically distinguishes the two different types of focus by using bold letters for identificational focus and small capital letters for informational focus.

There is an extensive amount of literature on the syntax and discourse function of clefts, and a number of different proposals have been put forward (cf. Akmajian 1970, Emonds 1976, Prince 1978, Collins 1991, Delin & Oberlander 1995). Generally, the structure of clefts seems to be something like (15) (Prince 1978):

- (15) a. *it* COPULA X [RELATIVE [...t...]]

In the main clause, we find a copula construction with an expletive *it* as a subject and some constituent X as a predicate, which is the head of the following relative clause, out of which X has been moved (hence the trace *t*). In terms of the focus-background terminology, X is the focus and the relative clause is the background.

A similar construction is that of pseudo-clefts, which also involve copula predication, but have a headless relative clause as a subject:

- (16) a. What John gave to Mary is a BOOK.
b. Was Hans Maria gegeben hat ist ein BUCH.

While the clefting strategy is widely spread in the languages of the world, there also are a number of languages for which it has been claimed that they have a structural position for focus within the sentence. The most prominent case of such languages is Hungarian (see discussion below); others include Aghem (Watters 1979), Basque (Ortiz de Urbina 1995), Greek (Tsimpli 1994), Bulgarian (Rudin 1986), and Quechua. Languages that display such a structural focus (or topic) position are called discourse configurational (cf. Kiss (ed.) 1995).⁶ Typically, the focus position is either immediately before (e.g. Hungarian) or after the verb (e.g. Aghem). In the following, I will use Hungarian to illustrate the property of discourse configurationality.

As we already saw at the end of the previous section, identificational foci have to appear in a position immediately left of the verb (Puskás 2000: 56):

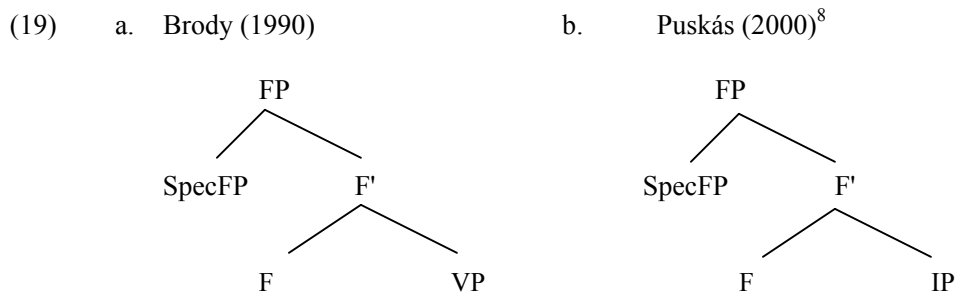
- (17) a. ATTILÁT szereti Emöke.
Attila-ACC love-PRES-3SG Emöke-NOM
Emöke loves ATTILA.
- b. A SÁTORJÁBAN feküdt a Hunok vezetője.
the tent-POSS-iness lie-PAST-3SG the Huns chief-his-NOM
The chief of the Huns lays in HIS TENT.
- c. AZ ESKÜVŐ UTÁN halt meg Attila.
the wedding after die-PAST-3SG PART Attila-NOM
Attila died after THE WEDDING.

While the assumed normal Hungarian word order is SVO, we find OVS in (17a), which exhibits focus on the object. That the focus is always occurring in a position directly preceding the verb can be seen from particle verbs, where the particle usually precedes the verb (18a), but follows it if there is an element in the focus position (18b) (Horvath 1995: 31):

- (18) a. Eldobtam az újságot
away-threw-I the newspaper-ACC
I threw the newspaper away
- b. AZ ÚJSÁGOT dobtam el.
THE NEWSPAPER-ACC threw I away
It's the newspaper that I threw away.

⁶ Kiss (1995) distinguishes between A-type and B-type discourse configurationality, the former referring to languages with a structural topic position, the latter to such with a structural focus position. The two types are compatible (and often co-occur), but independent of one another.

There is a lively ongoing debate about the exact syntactic analysis of sentences containing a preposed focus⁷, but it is generally assumed that there is a syntactic feature [+f] that has to be checked by the focused constituent, and which (at least since Brody (1990)) is commonly assumed to be located in its own projection, FP (Focus Phrase). This FP is assumed to be located within IP, dominating VP (Brody (1990) and others), or, alternatively, in CP, dominating IP (Puskás 2000). The syntactic structure of Hungarian sentences containing a (identificational) focus hence is supposed to take one of the following two forms:



The focused constituent is then assumed to move into SpecFP.

There are some interesting parallels between the analysis of the Hungarian focus position and focus in other languages that do not have (obligatory) focus movement. First of all, it has been assumed that in English, focus movement takes place at the level of LF, mainly for reasons of scope and certain weak crossover effects (cf. Chomsky 1976, 1981). Furthermore, foci in Hungarian share a trait with English cleft-constructions in respect to meaning: The interpretation of both constructions involves exhaustivity. This, among other things, has led Kiss (1998) to analyze English cleft sentences in a manner parallel to the Hungarian focus sentences, namely as involving a focus phrase, that, in the case of English, takes a CP (containing the relative pronoun or the complementizer *that*) as its sister.

In the following chapters, we will face the question whether Kikuyu sentences with a preposed focused constituent are cleft sentences or rather instances of a syntactic focus phrase. The existent analyses of Hungarian provide an interesting background for the discussion of the Kikuyu data.

2.6 Fieldwork on Focus – Question-Answer Congruence

Theories of focus are, as the preceding sections have shown, rather complex and involve phonological, morphosyntactic, and semantic issues. It is helpful to keep apart the different types of questions that are important in connection with these phenomena. Generally, one can distinguish three different groups of questions.⁹ First of all, one can investigate how focus (or other information structure categories, e.g. topic) is realized, for example by means of certain syntactic constructions or pitch accent. Secondly, one can ask how focus is represented in the formal analysis of sentences (e.g. by a syntactic feature), and what rules govern processes like focus projection. Finally, one can investigate how focus is interpreted.

In this study, I mainly am looking at the realization and the representation of focus. The question is, of course, how to go about studying focus-related phenomena in another language, working with an informant. Judgments with respect to focus can be quite sublime, and linguists working on focus theories often work on their own native language and therefore are able to rely on their own judgments, which are trained (and possibly also biased) by intensive

⁷ See Puskás (2000), Kiss (1995), (2002), and Horvath (1995) for some recent discussions.

⁸ This is a simplified version, since Puskás (2000: 67) assumes a split IP, so that the sister of F would be AgrP, which in turn dominates TP and VP.

⁹ This tripartition of the central questions in the theory of information structure is adapted from Daniel Büring's lecture notes for a class on information structure taught at the DGfS/LSA-summer school in Düsseldorf in July 2002.

study of the relevant phenomena. The approach I have taken here is by presupposing, to some extent, some of the semantic insights of focus theories. In particular, I have applied the semantically motivated concept of question answer congruence to elicit judgments from the informant regarding the adequacy of different sentences as answers to questions. Taking for granted that the question context determines what is in focus in an appropriate answer, this will allow us to study how focus on a certain part of the sentence is realized. Since it turns out that focus is marked mainly by morphosyntactic means in Kikuyu, this also leads us to some considerations about how focus can be formally represented.

It turned out these types of judgments concerning the adequacy of a sentence as an answer to a question seemed to be quite clear and consistent for my informant. Since the relation between question contexts and focus is also generally accepted in the field, it seemed like an adequate tool to determine focus in the following chapters.

3 The Morphosyntax of Focus in Kikuyu

While, historically, the study of focus has evolved from an interest in what determines the placement of pitch accent in languages like English and German, we can now, that we have a theoretical concept of focus, apply techniques like question answer congruence to look at what means different languages use to mark focus. As already mentioned at the end of chapter 2, this is the method that I will mainly use throughout this study to control for what is in focus in a sentence.

The way this technique has been applied is mainly in presenting the informant with a question and different sentence forms as an answer to it. He then was asked which sentences would be appropriate answers to the question.

This chapter is organized as follows: In the first section, the basic occurrences of the particle *ne*, which is crucial for many focus constructions as well as some basic data exemplifying different types of focus constructions will be presented. This will be limited to answers to questions with simple (as opposed to internally complex) foci to keep things simple. The data illustrates that both *wh*-words and foci can appear in-situ as well as in a preposed position. In the preposed case, they are preceded by the particle *ne*, which also appears preverbally and in copula constructions. One of the central questions of this and the following chapter will be how this particle should be analyzed. In the following two sections, several previous accounts of the particle *ne* will be presented, beginning with the early works of Armstrong (1940) and Barlow (1951), continuing with the first analysis in the generative framework by Myers (1971) and finally turning to Clements (1984) and the detailed study by Bergvall (1987). In the course of this discussion, new examples, which are crucial for the different authors' analyses, are introduced.

The discussion of Bergvall's and Clements' analyses leads to the question of whether the preposed *ne*-constructions are best to be analyzed as clefts or as focus phrases. At the end of this chapter, I give an overview of the problems that each of these approaches faces. This leads to chapter 4, where I try to argue, based on new data, that the cleft-analysis cannot be maintained.

3.1 Basic Data

Although not all data will be presented at this point, it is necessary to demonstrate the different basic types of relevant constructions in order to do justice to the amazing morphosyntactic variation we find in the data for seemingly identical meanings. First of all, some examples of the occurrence of the particle *ne*, which has been at the center of previous research on focus in Kikuyu, will be given. Next, I will give an overview of simple question-answer sequences and the different ways of how these can be expressed.

Note that the type of data presented in this section is mostly not new, but rather consists of examples which have the same structure as the standard data discussed in the literature. Some crucial pieces of new data are already mentioned, but will be discussed at a later point in chapter

4, where they play an important role in the argument for my proposal of a new analysis of focus constructions in Kikuyu.

3.1.1 The Puzzling Particle *ne*

Virtually all discussions of focus or *emphasis*, as it has often been referred to in the literature on Kikuyu, concentrate on the particle *ne*. This particle occurs in three basic types of contexts, namely with fronted question words and focused constituents, at the beginning of the verbal complex in (certain) assertive sentences, and in copula constructions. The first type is exemplified in (20):

- (20) a. ne-kee Abdul a-ra-nyu-ir-ε?
 FM-what A. SM-T-drink-ASP-FV¹⁰
 What did Abdul drink?¹¹
- b. ne ma-e Abdul a-ra-nyu-ir-ε.
 FM 6-water A. SM-T-drink-ASP-FV
 It is water that Abdul drank

The (a) and (b) types behave exactly the same with respect to focus and movement and therefore form a uniform category.¹² The accuracy of the *it*-cleft translation in (20b) is one of the central questions in the discussion of different analyses in the course of this chapter. No claims are made at this point in this regard. I will choose cleft translations for the fronted focused constituents with preposed *ne* simply to keep the word order in the English paraphrase as similar as possible to the word order in Kikuyu. Otherwise, these might just as well be translated as English in-situ focus sentences, i.e. as *Abdul drank WATER*.¹³

The second type of constructions in which *ne* appears consists of sentences expressing an assertion with no emphasis on a single element:

- (21) a. Abdul ne-a-ra-nyu-ir-ε ma-e¹⁴
 A. FM-SM-T-drink-ASP-FV 6-water
 Abdul drank water. *or*
 Abdul did drink water.

¹⁰ Although *ne* is commonly referred to as a focus *particle* in the literature, I will adopt the label *focus marker* (*FM* in the interlinear translation) in this study. This should avoid confusion with focus-sensitive particles such as English *only*, *also*, *even*, which also sometimes are referred to as focus particles.

¹¹ Kikuyu has a rich tense and aspect system. Mugane (1997: 120) as well as Johnson (1980: 273) refer to the tense-aspect combination in (20) as *near past completive*. In the following, tense and aspect are not analyzed in detail, unless relevant in the context of discussion. Translations are therefore not necessarily accurate in this regard. Following Johnson, I take the relevant prefixes to mark tense and the suffixes to mark aspect. For detailed discussion of the highly complex tense and aspect system of Kikuyu, see Johnson (1978), (1980).

¹² There are, of course, differences between *wh*-question words and referential NPs. We will come back to differences in the analysis of the two types of constructions. It should be noted already that the apparent focus-marking of questions as displayed in (20b) is an interesting phenomenon by itself.

¹³ While I will argue in chapter 4 that the preposed *ne*-constructions are not clefts, it might be that the cleft translation is more adequate for semantic reasons. See section 5.2. in chapter 5 for a discussion of this possibility. I will not use the cleft constructions in the translation for questions, as these are not as common in English.

¹⁴ In writing, *ne* is usually written as being part of the verbal complex. I will adopt this practice, although one might just as well write it separately. However, this does not make a great difference, and we will have to come back to the status of *ne* in the discussion of analyses of focus constructions.

It was noted already in the early writings on Kikuyu that this use often comes with a certain emphasis that is affecting the entire sentence. Barlow (1951: 117) writes that it gives “definiteness or emphasis to a statement” and compares it to the effect of *do*-support in English (hence the *did* in the paraphrase). Armstrong (1940: 168) describes this use as appearing in an “affirmative answer [...] made with strong certainty, definite promise, determination”. The exact nature of this emphasis will be an important issue in this study, and will be discussed in section 4.2.6 in chapter 4 (as well as in the discussion of Clements’ and Bergvall’s work in this chapter). Note that the same form shows up in Yes/No-questions as well:

- (21) b. Abdul ne-a-ra-nyu-ir-ε ma-e?
Did Abdul drink water?

An answer to the question in (21b) has to have the form of (21a); in particular, it has to include preverbal *ne*. The question and the answer are only distinguished by intonation.

Finally, *ne* also appears in copula constructions as in (22). As a matter of fact, some authors (e.g. Barlow 1951) have analyzed *ne* to be the copula itself. However, as the discussion of the works by Clements and by Bergvall in section 3.3.1. will show, this may not be the best analysis.

- (22) a. Karioki ne mo-rutani
Karioki FM/COM 1-teacher
Karioki is a / the teacher¹⁵

The sentences in (20)-(22) exemplify the three basic environments in which *ne* occurs. One crucial task in this chapter and the next is then to determine whether we can give a unified analysis for these different occurrences of *ne*, and what such an analysis should look like. One important fact to note is that the different types of occurrence of *ne* seem to mutually exclude one another, i.e. within one clause we will only find one *ne*.

3.1.2 Simple Questions and Answers

In the previous section we have seen different contexts in which the particle *ne* appears, one of them being that of questions and answers. Let us now turn to the general question of how question-answer sequences can be expressed in Kikuyu. The first interesting fact that stands out immediately when we consider sequences of questions and answers is that both in-situ and fronted *wh*-question words are possible, with no apparent difference in meaning or contextual appropriateness. Thus, the question in (20a) above (repeated here as (23a)) can also be asked in the form of (23b):

- (23) a. ne-kee Abdul a-ra-nyu-ir-ε?
FM-what A. SM-T-drink-ASP-FV
What did Abdul drink?
- b. Abdul a-ra-nyu-ir-ε kee?
A. SM-T-drink-ASP-FV what

Crucially, the meaning of (23b) is, according to my informant as well as to all other authors that discuss this issue (e.g. Barlow 1951, Clements 1984, Bergvall 1987), identical to the meaning of (23a). In particular, it is not associated with the meaning of an echo-question, as is the case with in-situ questions in German and English. The typical answer to (23b) would be the sentence in (24):

- (24) Abdul a-ra-nyu-ir-ε ma-e
A. SM-T-drink-ASP-FV 6-water
Abdul drank Water

¹⁵ There are no articles expressing definiteness or indefiniteness in Kikuyu, therefore this sentence can mean both that Karioki is *a* or *the* teacher.

Note that here, as well as in the question in (23b), the particle *ne* is not present. In fact, the presence of preverbal *ne* in (24) would make the sentence inappropriate as an answer to the question in (23b).

To some extent, it seems like both types of answers (i.e. in-situ and preposed) are acceptable in the context of both types of questions. As the compatibility of these different question answer constructions is not our central concern at this point, I will mainly discuss structurally equivalent question-answer-pairs.¹⁶

The two possibilities of question and answer formation can be found in constructions involving almost all types of questioned constituents, as the following list of examples (where (a) and (b) display the preposed question and answer with *ne* (henceforth the ‘*ne*-form’), and (c) and (d) the in-situ-form) may illustrate:

Objects of ditransitive verbs

- (25) a. n-oo Abdul a-ḍom-aγ-er-a i-βuku?¹⁷
 FM-who A. SM-read-HAB-APPL-FV 5-book
 Who does Abdul (usually) read a book to?
- b. ne mw-ana Abdul a-ḍom-aγ-er-a i-βuku.
 FM 1-child A. SM-read-HAB-APPL-FV 5-book
 It is a child that Abdul (usually) reads a book to.
- c. Abdul a-ḍom-aγ-er-a oo i-βuku?
 A. SM-read-HAB-APPL-FV who 5-book
- d. Abdul a-ḍom-aγ-er-a mw-ana i-βuku¹⁸
 A. SM-read-HAB-APPL-FV 1-child 5-book
- (26) a. ne-kee Abdul a-ḍom-aγ-er-a mw-ana?
 FM – what A. SM-read-HAB-APPL-FV 1-child
 What did Abdul read to the child?
- b. ne i-βuku Abdul a-ḍom-aγ-er-a mw-ana
 FM 5-book A. SM-read-HAB-APPL-FV 1-child
- c. Abdul a-ḍom-aγ-er-a mw-ana kee?
- d. Abdul a-ḍom-aγ-er-a mw-ana i-βuku¹⁹

Local Adverbial

- (27) a. ne-ko Abdul end-er-iri-ε γε-tonga nyomba?²⁰
 FM-where A. (SM)-sell-ASP-FV 7-rich man 9.house
 Where did Abdul sell the house to the rich man?

¹⁶ The issue of compatibility is picked up in in chapter 5 in section on semantic issues.

¹⁷ The particle *ne* merges with the question word *oo*, meaning *who*, to form *noo*. The morphological slot for tense is phonetically empty in this sentence, which, in combination with the aspectual marker *aγ*, forms the *current imperfect* (Mugane 1997: 120) or *long imperfect* (Johnson 1980: 273). The applicative converts the (optionally) transitive verb *ḍoma* into a ditransitive verb *ḍomera*.

¹⁸ As in (23b) and (24) above, preverbal *ne* would turn the (c) and (d) examples in this list into ungrammatical questions and inappropriate answers, respectively.

¹⁹ There actually is yet another possibility for this question-answer-sequence, where the wh-question word and the answer to it are moved to the right. The possibility of right-moved question words is discussed in detail in Bergvall (1987a). The issue will be picked up again at a later point.

²⁰ The verb *koendia*, to sell, and verbs that end on *-ia* in general, take *iriε* instead of *ire* as the aspectual marker (plus final vowel) (see Barlow 1951: 138).

- b. ne Nairobi Abdul end-er-iri-ε γε-tonga nyomba
It's in Nairobi that Abdul sold the house to the rich man
- c. Abdul end-er-iri-ε γε-tonga nyomba ko?
- d. Abdul end-er-iri-ε γεtonga nyomba Nairobi

Temporal Adverbial

- (28) a. ne-re Abdul end-er-iri-ε γε-tonga nyomba?
FM-when A. (SM)-sell-APPL-ASP-FV 7-rich man 9.house
When did Abdul sell the house to the rich man?
- b. ne ira Abdul end-er-iri-ε γε-tonga nyomba
It was yesterday that Abdul sold the house to the rich man
- c. Abdul endeririε γεtonga nyomba re?
- d. Abdul endeririε γεtonga nyomba ira

This list is, of course, incomplete. It is simply supposed to illustrate the broad range of the phenomenon under discussion. Further examples will be given in chapter 4.

Apart from the two types of constructions shown above, there is yet another possibility, which will turn out to be a variant of the (a/b)-type. This construction has not been documented so far in the literature, but my informant consistently produced it for all the listed examples. Shown here as a variant of (25), the construction looks as follows:²¹

- (25) e. Abdul n-oo a-ðom-aγ-er-a i-βuku?
A. FM-who SM-read-HAB-APPL-FV 5-book
Who does Abdul (usually) read a book to?
- f. Abdul ne mw-ana a-ðom-aγ-er-a i-βuku.
A. FM 1-child SM-read-HAB-APPL-FV 5-book
It is a child that Abdul (usually) reads a book to.

Since such examples have not been mentioned by any of the authors discussed in the following section, we will not come back to them before chapter 4, where they will play a central role in my analysis.

While the co-existence of questions in the in-situ-form and in the *ne*-form is quite general, as we have seen in the previous examples, there are a few exceptions to this pattern. As the reader may have noted, we have not yet given an example of questions asking for a subject. This is because these constitute one of the exceptions - they only exist in the *ne*-form, as shown in (29):

- (29) a. n-oo o-ðom-aγ-er-a mw-ana i-βuku?
FM-who SM-read-HAB-APPL-FV 1-child 5-book
Who read the book to the child?
- b. ne Abdul o-ðom-aγ-er-a mw-ana i-βuku
It is Abdul who read the book to the child
- c. * oo a-ðom-aγ-er-a mw-ana i-βuku
- d. # Abdul a-ðom-aγ-er-a mw-ana i-βuku

²¹ More examples will be provided in chapter 4.

(29d) is, of course, only unacceptable as an answer to (29c) or (29a). Therefore it is marked with ‘#’ (which will indicate that a sentence is inappropriate in the given context in all following examples).

One interesting point in (29) is that the subject prefix does not appear in its usual form *a* but rather as an *o* (which turns into *w* by a phonological rule before vowels). This is the same form that is used as the concordance marker for the demonstrative *-rea*, which takes the form *o-rea* when occurring with a class one noun, e.g. as *mw-ana o-rea*, meaning *this child*. The same change in the subject prefix also occurs in relative clauses:

- (30) Abdul o-ðom-ir-ε i-βuku ne-a-nyu-ir-ε ma-e
 A. SM-read-ASP-FV 5-book FM-SM-drink-ASP-FV 6-water
 Abdul, who read a/ the book, drank water

This, and other, similarities between focus constructions in the *ne*-form and relative clauses will be discussed in detail in the section on Clements work (3.3.2).

Another exception to the possibility of using both the in-situ and the *ne*-form in question-answer sequences is that of manner-adverbials. They behave exactly in the opposite way of subjects in that they only allow for the in-situ form, whereas the *ne*-form is ungrammatical.

- (31) a. * ne atea Abdul εnd-iri-ε nyomba?
 FM how/what A. (SM)-sell-ASP-FV 9.house
 How did Abdul sell the house?
- b. * ne na-rua Abdul εnd-iri-ε nyomba
 FM quickly A. (SM)-sell-ASP-FV 9.house
 Abdul sold the house QUICKly
- c. Abdul εnd-iri-ε nyomba atea?
- d. Abdul εnd-iri-ε nyomba na-rua

Another, similar case is that of (32), where the question asks for an instrument adverbial:

- (32) a. * ne na kee Abdul a-ra-hor-a fu(n)da?
 FM with what A. SM-T-beat-FV 9.donkey
 With what did Abdul beat the donkey?
- b. Abdul a-ra-hora fu(n)da na kee?
- c. * ne na mo-te Abdul a-ra-hora fu(n)da
 FM with 3-stick A. SM-T-beat-FV 9.donkey
- d. Abdul a-ra-hora fu(n)da na mote

Possibly, both of the constructions in (31) and (32) involve adverbial PP’s, as true adverbs are extremely rare and (31) also involves the prepositional *na*. This might explain their parallel behavior.

These are the only exceptions that I have found up to this point of the otherwise fully general principle allowing for two types of constructions of questions and answers, the in-situ form and the *ne*-form.

This data shall suffice to establish a first overview of the dimension of variation in the construction of question-answer sequences in Kikuyu. In the course of the following discussion, more examples will be introduced and more subtle phenomena will be observed.

3.1.3 Summary

For the following discussion of the different proposals of analysis, we should keep in mind some central questions that a theoretical account of the particle *ne*, and, more generally, of focus in Kikuyu, has to provide answers to.

- Is it possible to account for the occurrence of *ne* in the three different types of environments illustrated in 3.1.2 in a uniform way? If yes, what is the simplest way to do that?
- Why is it that only one *ne* occurs per clause?²²
- Why do subject-questions only allow for the *ne*-form?
- Why does the subject prefix on the verb change from *a* to *o* in subject questions and subject focus answers?²³
- Why is the *ne*-form not possible in questions (and the respective answers) asking for a PP-Adverbial (as in (31) and (32))?

The first four of these questions will be present throughout the discussion of Clements' and Bergvall's analyses as well as in my own proposal in chapter four. A very speculative answer is given to the last question in chapter 5, section 5.2.

3.2 Early Comments on *ne*

Before turning to some more of my own data, and to an attempt of analysis, I want to give an overview of the existent discussion of the relevant phenomena in Kikuyu. As already mentioned, the authors discussed here are mainly concerned with the possible occurrences of the particle *ne* and its meaning. There are, however, also some remarks paying attention to the in-situ questions and answers. The contribution of the early writings by Armstrong, Barlow and Benson mainly consists of an informal description of the contribution of *ne* to the meaning of a sentence, and of the environments that require its presence or absence. The more recent writings by Myers, Clements, and Bergvall provide more detailed theoretical analyses and interesting examples that help to shed light onto the grammatical structures behind the observed phenomena.

3.2.1 Barlow, Armstrong, and Benson

Barlow (1951) recognizes all three usages of *ne* described above. He describes the constituent focus with preposed *ne* as being used to express "ordinary contrasting emphasis" (Barlow 1951: 12), and gives a list of examples similar to the (b)-sentences in our list in 3.1.2. In another section, he notes that "in this way [by preposing a constituent preceded by *ne* F.S] prominence is given to the word following *nĩ*. The idiom is often employed with interrogative adverbs and pronouns, which then follow *nĩ* instead of coming at the end of the sentence." (Barlow 1951: 48). The entry in Benson's dictionary for *nĩ* (Benson 1964: 282) further notes the common combination of *ne* with independent pronouns, e.g. in *ne-we*²⁴, which also occurs in the data from my informant (see e.g. example (149) in section 4.2.10). Barlow (1951: 74) translates the similar example *ne-guo* as *that is it*.

Concerning its occurrence as a preverbal particle, Barlow writes:

Nĩ, the copula, is commonly prefixed to affirmative verb-forms in the indicative and conditional moods. It gives preciseness or positiveness to the fact stated or the question asked, being equivalent to 'It is (a fact) that' or 'Is it (the case) that?'. Its function in past tenses is akin to that of the auxiliary 'did' in English. [...] When a sentence consists of an affirmative finite verb only (e.g. *nĩokire*, he came), *nĩ* is indispensable. (Barlow 1951: 34)²⁵

²² Possible exceptions for this generalization are presented in section 4.1.2. and discussed in 4.2.10.

²³ Another phenomenon appearing within the verb is a change in its tonal structure, as described in Clements (1984). This will be discussed in the section on Clements' analysis.

²⁴ In addition, a use of *ne* that is best translated as *by* can be found in the entry, which appears, for example, in passive constructions: *hũrũio ne*, which Benson translates as *be beaten by*. It is not clear how this use of *ne* is related to the others, and I will not discuss this type of use.

²⁵ Barlow (as well as Benson) uses the Kikuyu orthography, where *ne* is written as *nĩ*. I do not change this in text quotes, although I will deliberately convert Kikuyu examples from these authors into the IPA-form generally used in this study to avoid confusion.

Interestingly, Barlow also already notes that while the presence of preverbal *ne* has the effect of “uniform emphasis throughout” the sentence (Barlow 1951: 34), its absence causes another (postverbal) constituent to be in focus, and he gives examples similar to our in-situ focus examples above.²⁶ Furthermore, Barlow provides a list of environments where *ne* never occurs:

- With a tense when used in the negative.
 - With the consecutive tenses.
 - With the “prefix *a*“ tense when “if“ or “when“ is implied
 - With the *kũ* present tense when it is used as a perfect.
 - In a clause which contains an interrogative enclitic, such as *atĩa*, *kũ*, *kĩ*, &c.
 - In a clause which contains *ũria* (=how, what)
 - In a relative clause.
 - With the *ngĩ* (conditional) tenses when used in the protasis of a sentence (see p. 152).
 - With the *kĩ* and *ĩte* and *aga* tenses when used in adverbial clauses, equivalent to English participles (see p.170).
- (Barlow 1951: 117)

Armstrong (1940) further describes contexts where *ne* does occur with the verb:

[...] *ne* forms of the verb are used:

1. (a) In affirmative questions which may be answered by ‘yes’ or ‘no’, and
 2. (b) In affirmative answers to questions of this type.
 3. In many affirmative statements (not necessarily in answer to ‘yes’ or ‘no’ questions) made with strong certainty, definite promise, determination, defiance. Such statements include those which offer a strong contrast, flat contradictions.
 4. In affirmative forms of the Subjunctive Mood which may be translated by ‘Let...’.
- (Hortatory.)
(Armstrong 1940: 168-169)

Armstrong further notes that she found the *ne*-form of the verb to be rather rare in conversation and narration. As she remarks herself, this is evident in the texts she has included at the end of her book, although it is at least partially due to the fact that the texts predominantly use tenses that do not allow for the *ne*-form, e.g. the Remoter Past Consecutive.

Turning to the copula use of *ne*, Barlow as well as Benson (1964: 282) takes *ne* to be the copula itself in these constructions. Barlow (1951: 48) remarks that “*ne* is the usual equivalent of the English copula (is, are, &c.). It is only used in the 3rd person.” There is, however, another element used in place of English *to be* in existential constructions that involve locality, namely the verb with the stem *-re*, as exemplified in (33) (Barlow’s example):

- (33) a. Kamau are haha
Kamau is here

Interestingly, in questions “asking the situation of a place”, *ne* is used (at least in these examples by Barlow (1951: 48)), as seen in (b) and (c),

- (33) b. ne ha?
c. ne ko?

which both mean *Where is it?*.²⁷ Even more interestingly, the verb *-re* (*‘be’*), which also is used for copula constructions that are not third person or present tense (see data in 3.3.1.), can be used, on rare occasions, with preverbal *ne*, as the following example from Bergvall (1987: 103) illustrates:

²⁶ His examples are different in that he describes the sentence-final constituent to be emphasized, not the one immediately following the verb. This is related to the issue of right-moved questions, which will be briefly discussed in chapter 5.

²⁷ *ha* and *ko* are different forms of locative question words, with the former meaning where in a (spatially) limited sense, and the latter in a (spatially) wide sense (cf. Barlow 1951: 43).

- (34) a. Kamau ne aare moremi
Kamau was a farmer

Such use is restricted to “strongly positive statements or emphatic questions”, and rather rare, according to Barlow (1951: 47). Nevertheless, it is possible, and this may be a strong indication that *ne* itself is not the copula, as argued by Clements (1980) and Bergvall (1987) (see discussion in the section covering these authors).

The important insights, then, which we gained from the authors discussed in this section, consist of the following:

- The use of *ne* is impossible in a number of tenses, including the consecutive tenses, as listed above.
- *ne* does not occur with verbs in the negated form.
- There is a copula-verb for existential predications, *-re*.
- *ne* can appear with this copula-verb.
- *ne* does not appear in relative clauses

3.2.2 Myers

Myers (1971) offers an interesting account of the distribution of *ne* in the framework of generative semantics (McCawley 1968), proposing that *ne* is “derived from a higher verb of assertion” (Myers 1971: 135). She attributes the absence of *ne* in subordinate clauses (she notes relative, temporal, and adverbial clauses as well as the protasis of conditionals) to its assertive nature, because only what is expressed in the main clause of a sentence can be asserted by a speaker. Material in subordinate clauses is presupposed, as she illustrates with an English example:

- (35) a. The man who killed John is here.

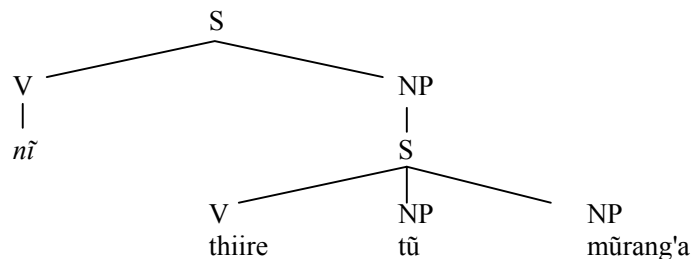
John’s being killed is presupposed here, and only the presence of his murderer is asserted. She thus concludes that

When the truth of the predication is either presupposed or indeterminable, *nĩ* does not appear. When the sentence involves the assertion by the speaker of the truth of what he says, *nĩ* is used. (Myers 1971: 135)

Her analysis intends to cover preverbal *ne* as well as sentence initial *ne* with a constituent other than the verb following. Quoting Barlow’s examples for the latter case, she maintains that “it is clear that an assertion is being made in the initial phrase of each of these sentences, and that the predication is, once more, presupposed to be true.” (Myers 1971: 137)

She provides the following proposal for the analysis of the underlying structure of the preverbal occurrence of *ne*:

- (36) a. netođiire moranga
We went to Fort Hall²⁸



²⁸ This is the translation that Myers provides.

It is unclear how this analysis could be generalized to the *ne*-form of focused constituents other than the verb, although Myers finds it plausible to assume that such a generalized analysis would be similar to the one in (36).

Although Myers' arguments are not very detailed, and her analysis remains quite vague, there appears to be some truth to the connection between the use of *ne* and the question of what is asserted in a sentence. The nature of this connection is still unclear at this point, and Myers' analysis of *ne* as a higher verb of assertion seems unconvincing. But stating this connection in more precise terms will be a central task ahead.

3.3 Clements vs. Bergvall – Focus Marker or Cleft?

In this section, I turn to the two most important competing theoretical accounts in the literature on *ne*, namely the analysis by Clements (1984) and the cleft-analysis by Bergvall (1987). Before turning to each of these, the next section will discuss the question whether *ne* should be analyzed as the copula or not. Both Clements and Bergvall agree on this issue, concluding that *ne* is not the copula. Their arguments for this are presented in the next section.

3.3.1 Against *ne* as a Copula

As already mentioned in section 3.2.1, there is another element, apart from *ne*, which is used in place of the English verb *to be* in locative constructions expressing the presence of the subject in the predicated location, as can be seen in Barlow's example repeated from above:

- (37) a. Kamau a-re haha
 Kamau SM-be here
 Kamau is here

The verb *-re* is defective in that it cannot take any aspectual or other suffixes. It can, however, take prefixes to express different tenses. It also takes the normal subject prefixes for the different noun classes. *Ne*, on the other hand, does not take any prefixes (or suffixes). Its use is restricted to expressing present tense for third person subjects. In other cases, *-re* is used, as seen in (38):

- (38) a. Kamau ne mo-remi
 Kamau is a farmer
- b. Kamau a-a-re mo-remi
 K. SM-T-be 1-farmer
 Kamau was a farmer
- c. to-re a-remi
 SM(1PI)-be 2-farmer
 We are farmers

Bergvall (1987: 76) points out that *ne* can also precede the verb in (b) and (c), but there can not be two *ne*'s in (a):

- (38) a'. *Kamau ne ne mo-remi
 b'. Kamau ne-a-a-re mo-remi
 c'. ne-to-re a-remi

The verb *-re* can also mean *have*, in which case it is often, but not necessarily, combined with *na* (*with*). The following example from my informant neatly illustrates how the two forms encountered above (with *ne* and *-re*) interact and overlap:

- (39) a. Kamau ne mo-rutani
 K. FM 1-teacher
 Kamau **is** a teacher

- b. Kamau (ne) a-re mo-rutani²⁹
 K. (FM) SM-have 1-teacher
 Kamau **has** a teacher
- c. Kamau (ne) a-a-re mo-rutani
 K. (FM) SM-T-be/have 1-teacher
 Kamau **was** a teacher OR
 Kamau **had** a teacher

In (39), we see a contrast between (a) and (b), with the apparent absence of an overt verb triggering the copula meaning, and its presence standing for the possessive meaning (as in (b)). In the past tense form, the sentence is ambiguous.

Taken together, these examples suggest that *ne* is not the copula itself, but rather that in the case of 3rd person present tense copula-constructions there is a phonologically null form of the copula verb following *ne*. The paradigms for the copula and the locative form would then be as follows

- (40) The two forms of *to be*:

Copular <i>be</i> ₁		-re (<i>be</i> ₂ ; be in; have)	
1 st P. Sg.	nd-e	1 st P. Sg.	nd-e
2 nd P. Sg.	or-e	2 nd P. Sg.	o-re
3 rd P. Sg.	(ne) Ø	3 rd P. Sg.	a-re
1 st P. Pl.	to-re	1 st P. Pl.	to-re
2 nd P. Pl.	mo-re	2 nd P. Pl.	mo-re
3 rd P. Pl.	(ne) Ø	3 rd P. Pl.	ma-re

In the case of the phonologically null forms in the third person, insertion of *ne* is obligatory to form a well-formed sentence (as exemplified in (24a)). In all other cases, *ne* can, but does not have to, occur (with its usual effect of emphasis).

The copular form for all non-human noun classes is also phonologically null (with obligatory occurrence of *ne*, as in the case of the third person form), while the verbal stem *-re* takes the regular noun class-prefixes. As Bergvall (1987: 76-77) notes, the exceptions of the first and second person in the copular form are reasonable, because if they would also come in the phonologically null form, there would be no way of telling the difference between *I am a farmer*, *you are a farmer*, and *he is a farmer* (etc. in the plural form). Alternatively, one could assume that there is only one verb of the form *-re* that is ambiguous, and that the ambiguity is distinguished in different forms in the third person.

Concerning the role that *ne* plays in these and other constructions, the accounts given by Bergvall and Clements differ substantially. They will be presented in the following two sections.

3.3.2 Clements (1984)

Clements is the first to propose an analysis of *ne* as a focus marker, which he describes as “an element occurring preposed to nouns and verbs, which indicates the scope of focus” (Clements 1984a: 39). He argues for an analysis involving a focus phrase within the CP (within S', in his terminology), which contains *ne* and the focused element.

The argument in Clements (1984) is embedded in the context of the question of a special verb form that only occurs in specific syntactic environments, which all crucially involve, in Clements terms, an *open clause*. These environments are relative clauses, sentences with clause-initial constituents marked for focus, and wh-questions with preposed wh-question words. These three

²⁹ Here, as well as in (c), *ne* is optional, having its usual effect of emphasis when it occurs.

constructions show the same behavior concerning changes in the verbal morphology and syntactic constraints on extraction.

3.3.2.1 Morphological Changes

The following data illustrate the morphological changes that can be observed in these constructions when compared to normal main clauses (Clements 1984a: 39):

- (41) a. Kariokĩ á-¹tém-írÉ mo-tě¹³⁰
 K. SM-cut-T 3-tree³¹
 Karioki cut a tree
- b. nó.o o-tém-írÉ mo-te?
 FM-who PP-cut-T 3- tree
 Who cut a tree?
- c. né Káriokĩ ó-tém-¹írÉ mo-te
 FM K. PP-cut-T 3-tree
 It's Karioki (that) cut a tree
- d. mo-ndo o-riă ó-tém-¹írÉ mo-te
 1-person PP-DEM PP-cut-T 3-tree
 the person (that) cut a tree

Clements describes the following changes in the verb form in the syntactic environments mentioned above, shown here in (b)-(d), in comparison to the regular main clause in (a):

- the post-verbal downstep³² is deleted.
- when the element that is asked for, focused, or relativized, is a class one subject, the subject prefix changes from /á/ to /o/.
- in addition, verbal negation changes from the infix /-tí-/ to /-tá-/

This last point is illustrated in (42) (Clements 1984a: 40):

- (42) a. ka-aná yá-¹tém-írÉ mo-tě¹
 12-child SM-cut-T 3-tree
 the child cut a tree
- b. ka-aná yá-tí-ná-tém-¹á mo-te
 12-child SM-NEG-T-cut-T 3-tree
 The child didn't cut a tree
- c. nó.o o-ta-ná-tém-á mo-te?
 FM-who PP-NEG-T-cut-T 3-tree
 Who didn't cut a tree?

Apart from other changes in the tonal structure and in the marking of tense³³, we can see here that the wh-question in (c) displays the *ta*-form of negation, whereas the negated main clause in (b) contains the *ti*-form.

³⁰ /¹/stands for downstep. Clements' examples deviate from the surface form in that the phonological processes affecting vowel sequences, as described in the introduction, have been reversed to promote morphological transparency.

³¹ I have taken over Clements' glosses in this section, except that I specify the noun class prefixes. Note that Clements does not distinguish between tense and aspect affixes.

³² This downstep is realized after the first complement of the verb in (41a) (see Clements and Ford (1981) for details on this phenomenon as well as on the notion of downstep). In addition, there often are other tonal changes in the verb.

3.3.2.2 *Syntactic Constraints*

The syntactic constraints for extraction are illustrated in the following data. First of all, all the constructions under discussion allow for “long-distance”, unbounded dependencies between an NP and its trace (Clements 1984a: 41, 43, 44):

- (43) a. nó.o ó-ɣw-eciiri-a Ngoɣe a-úɣ-írɛ áte Kama.ú a-ón-írɛ?
 FM-who PP-T-think-T N. SM-say-T that K. SM-see-T
 Who do you think Ngũgĩ said that Kamau saw?
- b. né Káma.ú n-gw-é'ciiri-a Ngoɣe a-úɣ-írɛ áte o-ɔn-írɛ Kaanake
 FM K. SM-T-think-T N. SM-say-T that PP-see-T K.
 It's Kamau (that) I think Ngũgĩ said (that) saw Kanake
- c. mo-ndo o-reă n-gw-é'ciiri-a Ngoɣe a-úɣ-írɛ áte Kama.ú a-ón-ír'ɛ
 1-person PP-DEM SM-T-think-T N. SM-say-T that K. SM-see-T
 the person (that) I think Ngũgĩ said (that) Kamau saw.

In all these cases, extraction out of an embedded clause is possible. Note that all embedded clauses in these examples are introduced by a bridge verb (cf. Bresnan 1968) like *think* or *say*. There are, however, island constraints restricting the possibility of extraction, as seen in (44) (Clements 1984a: 41, 43, 44):³⁴

- (44) a. * nó.o Káma.ú a-ón-írɛ mó-ndo o-reă ó-ríng-írɛ?
 FM-who K. SM-see-T 1-person PP-DEM PP-hit-T
 Who did Kamau see the person (that) hit?
- b. * né Kaanáké Kámá.ú a-ón-írɛ mó-ndo o-reă ó-ríng-írɛ
 FM K. K. SM-see-T 1-person PP-DEM PP-hit-T
 It's Kanake (that) Kamau saw the person (that) hit
- c. * mo-ndo o-reă Kámá.ú a-ón-írɛ mó-ndo o-reă ó-ríng-írɛ
 1-person PP-DEM K. SM-see-T 1-person PP-DEM PP-hit-T
 the person (that) Kamau saw the person (that) hit

Interestingly, the constructions in (44) can be improved by inserting a resumptive pronoun³⁵ in the clause from which the element has been extracted (Clements (1984a: 42, 44), highlighting of object markers by FS):

- (45) a. ? nó.o Káma.ú a-ón-írɛ mó-ndo o-reă ó-mó-ríng-írɛ?
 FM-who K. SM-see-T 1-person PP-DEM PP-OM-hit-T
- b. né Kaanáké Kámá.ú a-ón-írɛ mó-ndo o-reă ó-mó-ríng-írɛ
 FM K. K. SM-see-T 1-person PP-DEM PP-OM-hit-T
- c. mo-ndo o-reă Kámá.ú a-ón-írɛ mó-ndo o-reă ó-mó-ríng-írɛ
 1-person PP-DEM K. SM-see-T 1-person PP-DEM PP-OM-hit-T

³³ Affirmative and negative forms of verbs are quite different in most tenses, which has caused authors like Barlow and Armstrong to speak of affirmative and negative tenses. But these differences in form do not, of course, have anything to do with tense. Nevertheless, it is remarkable that the same tense is expressed quite differently in affirmative and negated verb-forms.

³⁴ The examples here illustrate violations of Ross's Complex NP Constraint (Ross 1967). Clements (1984) also provides examples for Wh-island constraints and another constraint related to the nominal modifier /-a/ ,of'.

³⁵ These are not formally distinct from the 'free' pronominal elements (Clements (1984a: 42), see also Bergvall (1987, 110-112)).

This results in fully acceptable sentences in case of (b) and (c), and in a question acceptable to some speakers in case of (a) (according to Clements). As Clements shows with further data, we actually find a complimentary distribution of gaps and resumptive pronouns in respect to island-versus non-island extraction sites, that is, only gaps occur in accessible (non-island) extractions sites, and only resumptive pronouns occur in island extraction sites.

So far, we have seen that the types of constructions under discussion display uniform behavior in several respects. The main goal of Clements' paper, however, is to explain why this is so, i.e., what property is shared by these constructions that causes them to behave uniformly. To do this, he attempts to show that they fulfill the same structural condition, which triggers the special verb form and the morphological changes. His goal is then to provide an analysis of these constructions that makes this structural similarity transparent.

3.3.2.3 *Analysis of preposed Focus constructions and wh-questions*

His analysis proposes the following phrase structure rules to account for the distribution of *ne* in the different constructions (Clements 1984a: 45):

- (46) a. $S' \rightarrow \text{COMP } S^{36}$
 b. $\text{COMP} \rightarrow \text{Comp (FOC)}$
 c. $\text{FOC} \rightarrow ne \text{ (NP)}$

This formalism generates all three basic constructions involving *ne*. The NP node is further subclassified by the feature $[\pm \text{WH}]$. If the optional nodes FOC and NP are both expanded, the result will be a preposed wh-question or focus construction, depending on the specification of the feature $[\pm \text{WH}]$. If FOC is expanded, but not NP, the focus marker *ne* is moved downwards in the structure into preverbal position and cliticizes onto the verb, resulting in a sentence containing preverbal *ne* (as in our example (5a) above). This same mechanism applies in the case of the copula construction, only that there the verb is (in case of the third person present tense form) phonologically null. If neither FOC nor NP is expanded, the result will be a sentence with in-situ focus, as, e.g., in (8) and (26a) above.³⁷

This analysis makes the correct prediction that there can only be one *ne* per clause, because maximally one node FOC is generated per clause. The ungrammaticality of the following sentences shows that this is correct (Clements 1984a: 46-47):

- (47) a. * *nó.o né Káma.ú óríng-íré ?*
 b. * *né Kaanáké né Káma.ú ó-ríng-íré ?*
 c. * *nó.o nó.o o-ɔn-íré ?*

None of these sentences can be improved by inserting a resumptive pronoun for the Object NP, as was possible to minimize or avoid island constraints. Clements further notes that the ungrammaticality of these sentences “cannot be explained on semantic grounds” (Clements 1984a: 47), because all of the sentences in (47) are perfectly fine if one of the preposed elements remains in-situ.

While (47) shows that no two elements (whether focused constituents or wh-question words) can be preposed with *ne*, we can see in (48) that the combination of a preposed constituent with *ne* and preverbal *ne* is impossible as well:

- (48) a. * *nó.o ne-a-o-ɔn-íré Kaanáké ?*

³⁶ I will later deliberately switch to more recent terminology, with *S'* being equivalent to CP, and *S* to IP.

³⁷ Clements does not say much about the in-situ focus constructions, although he does note them, and at one point describes them as characteristically being ‘used when the focus of the sentence falls exclusively on a postverbal constituent which remains in-situ’ (Clements 1984b: 313), a claim that we will discuss at a later point.

Another interesting prediction is borne out in the following examples, namely that in cases of multiple embedded clauses, extraction is possible to the FOC node of any of the clauses dominating the extraction site (Clements (1984a: 47), question words highlighted by F.S.):

- (49) a. **nó.o** o-γw-eciiri-a Ngóye a-úγ-íre áte o-ɔn-íré Kaanake ?
 FM-who SM(2Sg.)-T-think-T N. SM-say-T that PP-see-T K.
 b. ó-γw-¹eciiri-á **nó.o** Ngóye a-úγ-íre áte o-ɔn-íré Kaanake ?
 FM-who
 c. ó-γw-¹eciiri-á Ngóye a-úγ-íre áte **nó.o** o-ɔn-íré Kaanake ?
 FM-who
 Who do you think Ngũgĩ said saw Kanake?

Here, the question word *oo* can be extracted to any of the available FOC nodes in the different clauses, where it combines with the focus marker *ne*. This type of extraction is blocked, however, if *ne* is already present in one of these, as shown for the case of preverbal *ne* in (50) (Clements 1984a: 48)³⁸:

- (50) a. **né-kó** Ngóye á-úγ-íre áte Kama.ú ne-a-ɔn-¹íré Kaanáké¹ ?
 FM-where N. SM-say-T that K. FM-SM-see-T K.
 b. * Ngóye a-úγ-íre áte **né-kó** Káma.ú ne-a-ɔn-¹íré Kaanáké¹ ?
 FM-where
 c. Ngóye a-úγ-íre áte Kama.ú ne-a-ɔn-¹íré Kaanáké¹ **kó** ?
 where
 All meaning: Where did Ngũgĩ say (that) Kamau saw Kanake?

(50b) is ungrammatical, because the first embedded clause contains two *ne*'s.

3.3.2.4 Analysis of Relative Clauses

For the construction of relative clauses in Kikuyu, Clements proposes the following phrase structure rule (Clements 1984a: 48):

- (51) NP → NP S

Clements' reason for choosing S (= IP) rather than S' (= CP) as the complement of the head NP of the relative clause is that no relative pronoun or complementizer can occur in Kikuyu relative clauses. Furthermore, *ne* cannot occur in relative clauses either:³⁹

- (52) a. * ...mwanake orea [ne Kamau ɔ:nire]⁴⁰
 young-man DEM FM K. saw
 ...the young man that Kamau saw
 b. * ...mwanake orea Kamau neɔ:nire
 ...the young man that Kamau saw
 c. * ...mwanake orea ne moremi
 young-man DEM FM farmer
 ...the young man who is a farmer

³⁸ Any other construction with *ne* (focus constructions or preposed question words) displays the same pattern.

³⁹ At least not in the matrix clause of the relative clause. *Ne* can occur in embedded clauses within relative clauses, as we will soon see.

⁴⁰ This and the next example are taken from Bergvall (1987b: 108), who cites them from a paper presented by Clements in Groningen in 1980 (Clements 1980).

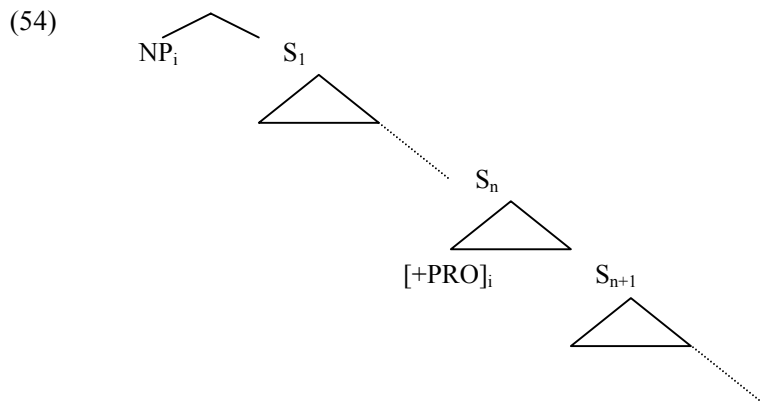
All of these sentences are perfectly fine if *ne* is omitted:

- (53) a/b. ...mwanake orea [Kamau ɔ:nire]
 young-man DEM K. saw
 ...the young man that Kamau saw
- c. ...mwanake orea moremi
 young-man DEM farmer
 ...the young man who is a farmer

All of these facts are, as Clements argues, explained if we assume that relative clauses lack the COMP node, that is, that they only contain an S (IP) and not an S' (CP).

3.3.2.5 Open Clauses

Clements concludes that the property shared by the constructions discussed here is that they are instances of *open clauses*, which he defines as “any clause S whose root node dominates an indexed pronominal [+PRO] and does not dominate its (coindexed) antecedent” (Clements 1984a: 49). This description fits all three types of constructions considered above. The special verb form, with the morphological modifications mentioned above, occurs when it is contained in an open clause. Formally, the environment of an open clause can be specified as follows (Clements 1984a: 50):



Note that this predicts that not only the clause out of which an element has been extracted will display the morphological changes on the verb (1), but also all clauses between the extracted element and the extraction site (2). In addition, all clauses above the extracted element (i.e., clauses dominating NP_i) (3) and below the extraction site (i.e., clauses dominated by S_n) (4) should contain the normal verb form.

Claim (1) was already discussed in the context of the morphological changes in the first place. Predictions (2) and (3) already prove to be true when we look at (49) above. The first verb, *think*, has its special tonal form (*ó-ɣw-eciĩri-a*) only in (49a), where it is preceded by the preposed question word *noo*. This, in combination with its normal tonal form (*ó-ɣw-éciiri-á*) in (49b) and (c) shows that claims (2) and (3) are correct.⁴¹ Claim (4) is shown to be true by the following example (Clements 1984a: 51):

- (55) a. Nó.o ó-ɣw-eciĩri-a o-uɣ-íré ate Kama.ú á-¹tém-íré mo-tě¹?
 FM-who SM-T-think-T PP-say-T that K. SM-cut-T 3-tree
 Who do you think said (that) Kamau cut a tree?

⁴¹ Clements does not address the question of why the normal postverbal downstep is missing here. One possibility is that, according to Clements and Ford (1981: 317), downsteps are deleted in certain types of questions. This would, however, probably leave other occurrences of downstep in questions within the given examples unexplained (e.g. in (39) and (35)).

The question word has here been extracted from the intermediate clause. Accordingly, the verb in the lowest clause appears in its normal tonal form ($\acute{a}\text{-}^1\acute{t}\acute{e}m\text{-}\acute{i}r\acute{e}$) as opposed to the other tonal forms in (41b-d).

3.3.2.6 Summary

Clements' analysis provides an explanation for the uniform behavior of a class of syntactic constructions by showing that they all fulfill the same structural condition, namely that they all contain instances of open clauses. Within this account, Clements proposes to analyze focus constructions involving *ne* as containing a focus phrase FOC within S' (= CP), which contains the focus marker *ne* as well as the focused element. He shows that these focus constructions allow for unbounded dependencies, but that they are subject to island constraints, along with the other constructions involving open clauses.

His analysis also provides answers to a number of central questions, namely

- why only one *ne* per clause is possible (because only one FP can be generated per clause),
- how the two different constructions involving focal *ne*, namely constructions involving preposed focused constituents and preverbal *ne*, are generated, and
- why *ne* does not occur in relative clauses (because relative clauses are simple S's/IP's that do not contain FP).

The explanatory power of Clements' account thus seems to be quite far reaching. There are, however, some problems (concerning the syntax of questions, for example), as we will see in the discussion of Bergvall (1987) and the following comparison of the two accounts. Nonetheless, we will come back to Clements' analysis, as it will be the basis of my own account in chapter 4.

3.3.3 Bergvall (1987)

Just as Clements, Bergvall (1987) holds that *ne* is not the copula itself, based on the reasons presented above in 3.3.1. But her analysis of the role of *ne* is quite different from Clements. She claims that *ne* is generated in the INFL node, and that it is not a particle expressing focus, but assertion. According to her proposal, the preposed focus construction with *ne* and a focused element are best to be analyzed as cleft sentences. *Ne* participates in these in the same way as it does in regular copula sentences. The focusing effect of these constructions is based on the biclausal cleft-structure, and not on the meaning of the particle *ne*.

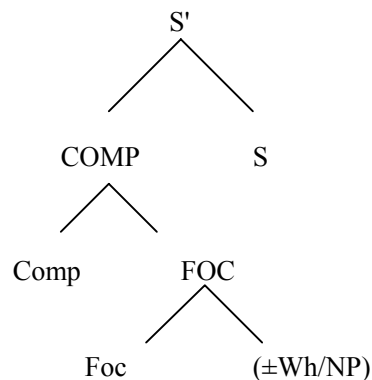
3.3.3.1 *ne* in INFL

One of the problems that Bergvall sees with Clements' analysis is related to the latest syntactic theory of her time, Chomsky's government and binding theory (GB) in the version of Chomsky (1986). The problem is that, as is still generally assumed today, question words generally have to c-command their empty category. With his analysis of FOC being a sister to Comp, Clements cannot provide a structure where this is done. Clements' phrase structure rules are repeated here, and the problem is illustrated in the tree in (56) (Bergvall 1987b: 118):

(56) a. S' → COMP S

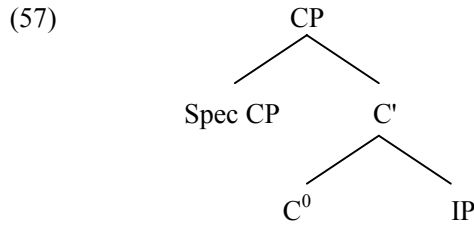
b. COMP → Comp (FOC)

c. FOC → *ne* (NP)



If the NP is [+Wh], there is no way that the according question word could c-command its empty category in S, because there are two maximal projections in the way, COMP and S'.

On the other hand, if one assumes a more recent version of the X-bar scheme, there also is a problem. In the (now standard) tree-structure including CP and IP, it is generally assumed that question words in English move into the specifier of CP:

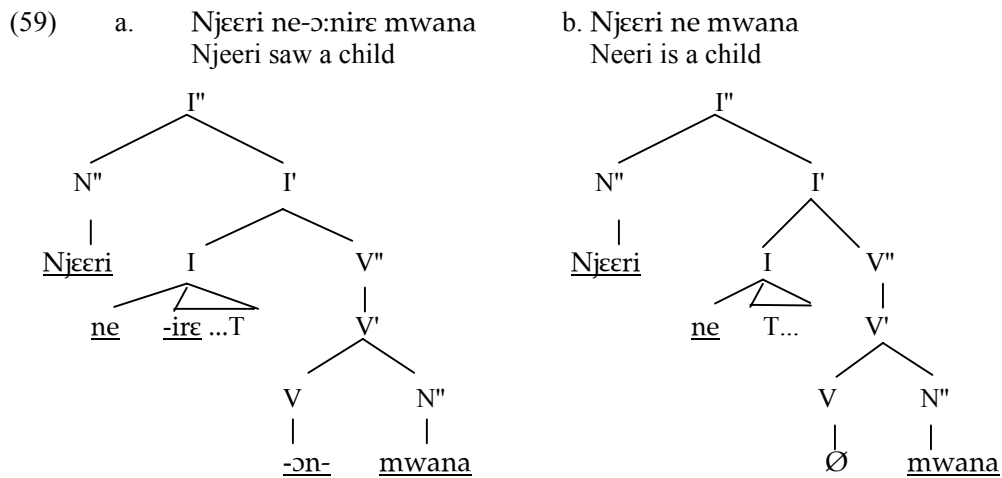


If the question word, e.g. *oo*, goes into Spec CP, and the complementizer *ate* goes into C⁰, then this results in the wrong word order for our Kikuyu examples, as the complementizer always occurs before the question word when they occur together, as in (58) (from Clements (1984a: 47), repeated from (34c) above):

- (58) a. ó-γw-[!]éciiri-á Ngóγe a-úγ-íré **ate nó.o** o-ɔn-íré Kaanake ?
 Who do you think Ngũgĩ said saw Kanake?

Another problem with the Kikuyu data that comes with the structure in (57) is that it is completely unclear where *ne* could be base generated.

The solution that Bergvall proposes for these problems is that *ne* is generated in INFL. Based on this assumption, the cases of preverbal and copular *ne* are very easily generated (simplified from Bergvall 1987b: 120)⁴²:



In the case of (a), *ne* will occur preverbally automatically, and will, according to Bergvall's analysis, be affixed to the verb by morphological rules. Note that this is different from Clements, who assumed that *ne* moves from CP into IP to cliticize onto to the verb. In the case of the copular construction in (b), basically the same thing happens as in (a), only that the copular verb is phonologically null (which was argued for, in accordance with Clements and Bergvall, above). Hence, the particle *ne* is the only overt element occurring between the two NPs.

3.3.3.2 Cleft-Analysis of Preposed *ne*-Focus

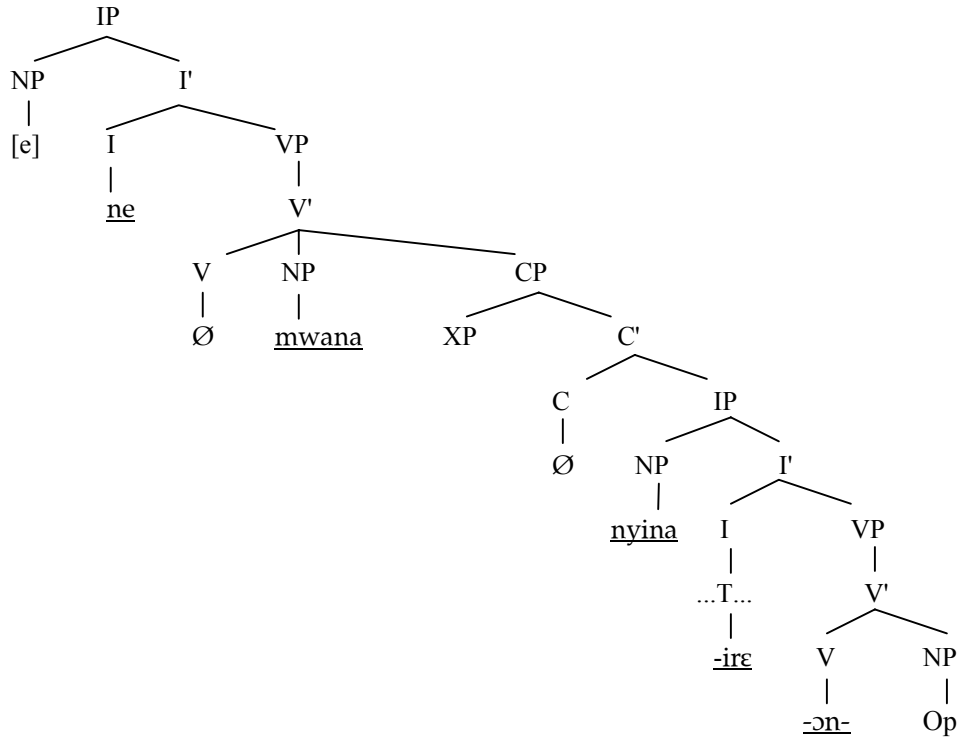
How can Bergvall integrate the case of the preposed, focused constituent preceded by *ne*? Here her cleft-analysis comes into play. According to her, all of the preposed focus sentences involve a

⁴² VP-internal morphology is assumed to be affected by further rules to result in surface structure.

cleft-construction, with the (usual) phonologically null copular verb, *ne*, and an empty, non-referential pleonastic subject. The structure she proposes for these types of sentences is this (Bergvall 1987b: 123):

- (60) a. ne mwana nyina o:nire
It's the child (that) the mother saw.

b.



This structure is transformed by movements to result in the following structure at LF, with the relative operator moved to Spec CP of the embedded clause, and coindexation of *nyina*, the operator and the empty element in object position:

- (44) c. [NP e] ne [V Ø] mwana_i [CP Op_i [C Ø [IP nyina o:nire e_i]]]

With this analysis, Bergvall can generate all three major occurrences of *ne* in a simple, uniform manner. And there are other constructions in Kikuyu that make such an account plausible.

3.3.3.3 Pleonastic Subjects and Clefts in Dependent Clauses

There are two phonologically empty slots in Bergvall's analysis, that of the subject and that of the copula verb. It has already been argued that a null-form of the copula verb appears in third person present tense copula constructions, so this is not a problem.

How about empty subjects in Kikuyu? Bergvall comes up with independent evidence, which shows that empty subjects are possible in Kikuyu. First of all, Kikuyu is a pro-drop language, and anaphoric pronominal subjects are commonly dropped:⁴³

- (61) a. Kamau ne-a-rɔ-ɔn-a mo-ndu. Ne mo-dorume
K. FM-SM-T-see-FV 1-person FM 1-man
Kamau is seeing a person. It is a man.

⁴³ Alternatively, one can analyze the subject marker on the verb as being ambiguous between a mere concordance marker and a fully pronominal element.

Furthermore, there are sentences with a class 17 (locative, general place) prefix, which cannot take an overt subject (Bergvall 1987b: 126):

- (62) a. [e] ko-e-na mbura
SM-be-with rain
 It's raining (*lit.* there-be-with, or there-has)

Even more interestingly, there are occurrences of the verbal stem *-re* in embedded clauses that seem to have an empty subject. The concordance subject prefix is always *a* (3rd person singular) in these cases, no matter what noun classes the nouns in the embedded clause (which might be candidates for the subject position) belong to. Bergvall again suggests that here we have an empty pleonastic subject. For illustration, Bergvall provides the following examples, originally taken from Barlow (1951: 267) (empty subject in (b) and (c) added by F.S.):

- (63) a. ma-on-ie orea [[e] a-re hinya monɔ [ko-mɛnya ...]]
OP-VS-CAUS-IMV how it-be hard much to-know
 Show them how very difficult it is to know (*lit.* show them how it is very difficult to know)
- b. E-ko-aria ta [e] a-re ko-roara a-roar-ete
SP-T-VS as-if it-be INF-VS SM-VS-T
 He speaks as if he were ill (*lit.* like it is being he is ill)
- c. e-ɣo-to-atha ta [e] a-re nyomba yake to-ɣo-aka
SP-T-OM-VS as-if it-be house hers SM-T-VS
 She commands us as if it were her house we are building.

It seems very plausible that all of the sentences in (63) contain a cleft in the embedded clause. Even though *are* never changes its prefix, there is evidence that we still are dealing with the actual verb *-re* (and not a particle akin to *ne*). This evidence comes from the negated form, which is formed with the normal dependent clause negation marker *ta*:

- (64) a. e-ɣo-to-atha ta [e] a-ta-re nyomba yake to-ɣo-aka
SP-T-OM-VS as-if it-not-be house hers SM-T-VS
 She commands us as if it weren't her house we are building.

So, given these examples, we may conclude with Bergvall that there are clefts in embedded clauses in Kikuyu.

3.3.3.4 *Biclausal ne-Constructions*

It only seems natural for Bergvall to extend this analysis to constructions with *ne*. But before she turns to *ne*-focus constructions, she gives examples of clearly biclausal constructions involving sentence initial *ne* (Bergvall 1987b: 128):

- (65) a. [e] ne Ø hinya monɔ [komenya wa ɣwe:ka]
COP difficult very to know (of) to do
 It is very difficult to know what to do
- b. [e] ne Ø ma [ate Njeeri nearɔnire kaana]
COP true that N. saw child
 It is true that Njeeri saw a child

Both of these sentences quite clearly contain two clauses, the first of them being a copular construction with an empty subject. What is particularly interesting in (65b) is that there is another *ne* occurring in the embedded clause. Clements would have to accept a biclausal analysis here as well, Bergvall argues, and hence accept the possibility of copula-constructions with an empty subject and an empty verb.

And then, she continues, what reason should there be to not accept this analysis for preposed focus constructions? Her analysis of these thus looks in general like the tree-structure above in (60), shown here only with the empty elements marked (Bergvall 1987b: 128):

- (66) a. [e] ne Ø moremi [Kamau ɔɔnirɛ]
 COP farmer K. saw
 It was a farmer Kamau saw
- b. [e] ne Ø haha [ngwatirɛ]
 COP here I-took-hold
 It is (*or* was) here I took hold

Her argument mainly appeals to the greater simplicity of her account. The structures for clauses containing *ne* and an empty subject and verb are needed anyway for other data. Her criticism against Clements then comes down to the question: Why should one assume another functional category and lots of more structure for a particular group of cases if there is a general analysis using the standard phrase structure inventory that can explain the same facts?

3.3.3.5 *Ne as an Assertion Marker*

Given that the effect of focus in the preposed constructions with *ne* results from the structure, namely the cleft-construction, for which there is general agreement that it has a focusing effect, Bergvall sees no need to posit a particular focal contribution of the particle *ne*. She can even explain why one might be tempted to see a direct relation between focus and *ne*, as *ne* standardly occurs in the cleft-constructions. Furthermore, she only sees a focusing effect in these constructions and claims “that *ne* in its other two manifestations, ‘copular’ and ‘preverbal predicator’, does not give a focal reading” (Bergvall 1987b: 166).⁴⁴ To support the first claim, she points out a difference of focus in the following two sentences, where only (b) is focused according to her (Bergvall 1987b: 132)⁴⁵:

- (67) a. Kamau ne moremi
 K. FM farmer
- b. ne moremi Kamau
 FM farmer K.

In support of her second claim, she argues that *ne* only can have scope over the entire VP.⁴⁶ It cannot focus a part of the verbal complex or a postverbal element. If *ne* was a particle marking focus, she argues, why can’t it appear anywhere but in the three basic positions discussed at the beginning of this chapter? Her answer is, of course, that it cannot move anywhere else because it is generated in INFL and always stays in INFL. And the only way it can focus elements other than the VP is by participating in the cleft-construction.

But what role does *ne* play then? Bergvall asks us to recall Myers’ analysis of *ne* as a ‘higher verb of assertion’, and to reconsider the suggested translations for *ne* given by Barlow as ‘did’ in its do-support function or as ‘It is the case that’. She claims that this approach is essentially correct:

I claim here that the key to all three uses is to take *ne* as a particle within INFL connoting ‘affirmation’, in specific contrast to the use of *ti* and *ta* as ‘negation’. The cover term for the use of both *ne* and *ti* is ‘assertion’, the affirmative and negative forms, respectively. (Bergvall 1987b: 133)

⁴⁴ Of course, it is crucial how we (and Bergvall) define the notion of focus. Given that Bergvall is not very explicit about this, we will come back to this claim in the light of our understanding of focus.

⁴⁵ Again, it is not clear how she determines what is in focus and what is not.

⁴⁶ I will argue that this claim is incorrect in the next chapter.

This, she continues, accounts for a number of facts, namely that *ne* only appears in asserted sentences (but see qualifications below!), that it does not appear with ‘alternative weak focus’ (in-situ focus)⁴⁷, that it cannot occur with certain tenses, which Bergvall assumes to “weakly focus the temporal aspect” (Bergvall 1987b: 133), and finally, that it cannot appear in consecutive verb forms either, which she tentatively explains by saying that these assert the linkage of events rather than each individual sentence.

3.3.3.6 *No ne in Dependent Clauses*

One further question that Bergvall has to answer is, of course, the absence of *ne* in relative clauses. In order to do this, she proposes an alternative to Clements’ notion of *open clauses*, namely the notion of *dependent clauses*.

She takes independent clauses to be basically the same as Emonds’ (1976) root clauses, which are characteristically not subordinated by another verb. Their independence consists in being able “to stand alone as sentences” (Bergvall 1987b: 82). Dependent clauses are then subordinate to another verb and cannot occur alone. Typical independent clauses are simple declarative sentences, and typical dependent clauses are relative clauses. In addition, Bergvall includes the consecutive tenses and the protasis of conditionals in the category of dependent clauses.

There also are some clauses that are subordinate to another verb and yet display independent clause type behavior. These are typically embedded by an ‘adsentential’ bridge verb (Bresnan (1968), e.g. *say, think etc.*), which take sentential complements.

The reason that Bergvall gives for the absence of *ne* in relative clauses, and in dependent clauses in general, is then a semantic one. The information in dependent clauses is not asserted, but rather presupposed, and therefore *ne* as an assertion marker cannot appear in them.⁴⁸ Clements’ argument against this that *ne* can appear in further embedded clauses is dismissed by Bergvall by pointing out that these examples all contain ‘adsentential’ verbs like *say*, which make the following embedded clause potentially independent and allow for the introduction of a new assertion.

One advantage of this account is, of course, that it not only explains the absence of *ne* in relative clauses, but also in consecutive tenses and the protasis of *if*-clauses, which all are dependent on another sentence. Clements’ open clause theory does not account for these.

3.3.3.7 *Summary*

Bergvall’s account assumes *ne* to be generated in INFL, and takes it to be a particle of assertion rather than focus. The focal effect in constructions involving preposed constituents preceded by *ne* is due to the cleft structure of these sentences, not to the particle. In these clefts, *ne* plays its normal assertive role as a preverbal particle. The only thing special about these constructions (as well as copula constructions) is that the verb is phonologically null, which lets *ne* and the focused element appear adjacent to each other in surface structure. One major argument for this analysis is that such structures have to be assumed to exist in Kikuyu for independent reasons anyway.

One interesting consequence of Bergvall’s account that she does not mention herself is that it would not posit *wh*-movement in Kikuyu. Generally it is taken to be a rather interesting fact about Kikuyu syntax that it allows for both in-situ and ex-situ questions. In Bergvall’s analysis, the alleged ex-situ question words are really in-situ in the clefted part of the sentence.⁴⁹

⁴⁷ Bergvall frequently refers to in-situ focus as ‘weak focus’, without specifying in what way it is weaker than preposed focus with *ne*.

⁴⁸ Note that this is different from claiming that there cannot be a focus in dependent clauses for semantic reasons. Although Bergvall does not address this question, her examples of cleft-structures in dependent clauses clearly show that it is possible to have a focus in a dependent clause.

⁴⁹ Of course, one can still have different views about how the cleft is generated – with the question word base generated in the cleft or with movement from the embedded clause to the cleft. So, in any case, the type of movement will be different from regular *wh*-movement to the C-domain.

3.3.4 Clefts or Focus Phrases?

In the preceding two subsections, we have discussed two quite different accounts for the distribution of the particle *ne* in Kikuyu. Before we turn to the question whether we have any good reasons so far to prefer one of these over the other, let us look at a comparative overview of how the two accounts explain some of the crucial facts:

PROBLEM / FACT TO BE EXPLAINED	CLEMENTS' ACCOUNT	BERGVALL'S ACCOUNT
<i>ne</i> in preposed focus and question word constructions	<ul style="list-style-type: none"> • Full expansion of the optional Phrase structure rules COMP → Comp (FOC) and FOC → <i>ne</i> (NP) • [\pm Wh] specifies whether the result is a focus or question construction 	<ul style="list-style-type: none"> • Biclausal structure; cleft-sentence with empty subject and null verb-form • <i>ne</i> in preverbal position
<i>ne</i> in copula constructions	<ul style="list-style-type: none"> • <i>ne</i> has moved down into preverbal position • phonologically null copula verb 	<ul style="list-style-type: none"> • <i>ne</i> is in its basic position in INFL • phonologically null copula verb
preverbal <i>ne</i>	<ul style="list-style-type: none"> • <i>ne</i> has moved down into preverbal position 	<ul style="list-style-type: none"> • <i>ne</i> is in its basic position in INFL
one <i>ne</i> per clause	<ul style="list-style-type: none"> • <i>ne</i> is only generated once per clause 	<ul style="list-style-type: none"> • presumably, it is semantically nonsensical to mark the assertive force more than once⁵⁰
no <i>ne</i> in relative clauses	<ul style="list-style-type: none"> • The highest node of relative clauses is S (IP) • The reason for this assumption is the absence of complementizers or relative pronouns • Since FOC is generated in S' (CP), <i>ne</i> cannot possibly occur in such clauses 	<ul style="list-style-type: none"> • semantic reason: information in relative clauses (and other dependent clauses) is presupposed, not asserted • hence, the assertion marker <i>ne</i> cannot occur
<i>ne</i> in subordinate clauses introduced by, e.g., <i>ate</i>	<ul style="list-style-type: none"> • The highest node of these clauses is S' (CP) • hence, they can contain a FOC node with <i>ne</i> 	<ul style="list-style-type: none"> • These are subordinate to bridge verbs, or verbs of assertion, which allow for an embedded assertion to be expressed

While both accounts seem to have (more or less) reasonable answers to these central issues listed in the table, they also both have their weaknesses and problems.

3.3.4.1 Problems of Clements' Account

The major point that Bergvall is making against Clements is that his account is much more complicated than hers, and this for reasons that are unnecessary. The type of structure she is supposing (that of copula constructions with empty subjects and a phonologically null verb form) exists in Kikuyu anyway, so why not extend it to the *ne*-focus sentences.

Furthermore, Bergvall rightly points out that Clements' open clause account is only partially adequate. While the observed morphological effects are always present in the clause from which an element is extracted, the other inbetween open clauses in examples such as in (43) only display the downstep effect. Furthermore, Clements account would have to be refined in order to distinguish between topicalization and focus-constructions. Topicalization constructions contain, according to Clements' account, an open clause, yet they do not display any of the phenomena

⁵⁰ Bergvall does not talk about this issue, but this seems like a likely argument from her viewpoint.

associated with this type. Clements seems to not be aware of this problem, even though he himself provides examples for such constructions (Clements 1984a: 43):

- (68) a. mbere ya mo-te oó-reă Kámá.ú a-ón-íré Kaanáké¹
 front of 3-tree PP-DEM K. SM-see-T K.
 In front of that tree Kamau saw Kanake
- b. né mbére ya mo-te oó-reă Kámá.ú a-ón-íré Kaanake
 FM front of 3-tree PP-DEM K. SM-see-T K.
 It's in front of that tree that Kamau saw Kanake

Note the presence of the downstep after *Kanake* in (a), which contains a topicalized element, and its absence in (b), in which the same element is put into preverbal focus. Also, verbal negation in (a) would be formed with *ti*, and in (b) with *ta*. Nevertheless, one might assume the preposed phrase to be base-generated somewhere lower in the clause in both sentences and hence assume movement. This would result in both sentences fulfilling the condition on open clauses, yet only (b) displays the relevant effects. A possible solution for this could be to assume that the topic is base generated in the topic position.

Taking into consideration more recent syntactic theory, Clements' account also has the disadvantage of not being able to provide an account in which the generally agreed upon requirement can be met that wh-question words have to c-command their traces when moved.

Also, Clements does not have an obvious explanation for the absence of *ne* in certain tenses, as listed by Barlow. It is not clear whether the argument for relative clauses, that they only consist of IP's, would go through for all of these as well. Bergvall, on the other hand, has a semantic motivation for this phenomenon, applying her notion of dependent clauses, whose information is not asserted.

Finally, Clements has to suppose downward movement of *ne* in the case of preverbal *ne* and its special case in copula constructions. Bergvall, on the other hand, never has to assume any movement for *ne*, and can maintain that it stays in its base position in INFL in all cases.

3.3.4.2 Problems of Bergvall's Account

Bergvall does not have an explanation as elegant as Clements' for the fact that only one *ne* occurs per clause. She does not discuss the issue, but all she could claim is that it is not reasonable to mark the assertive force of a sentence more than once.

Even more seriously, Bergvall's account depends, to quite an extent, on the assumption that *ne* only occurs in assertions. But obviously, as we have seen all along, *ne* also appears in questions. In regard to the occurrence of *ne* with preposed question words (i.e., in Bergvall's terms, question words in clefts), she says that "these *ne*-initial questions [...] assert that there is some x which fulfills the question asked by the rest of the clause" (Bergvall 1987b: 170). Though it might be assumed that constituent questions presuppose that there is an x that fulfills the requirements of the question (or at least, expressed more weakly, that it is possible that there is such an x), it seems unreasonable to claim that such questions assert this. As a matter of fact, if this notion of assertion is understood in any way related to being a speech act, it is unclear how the speech act of asking a question can at the same time be an assertion (or contain an assertion). Furthermore, there are not only wh-questions containing *ne*, but also questions involving preverbal or focal *ne*, as can be seen in the following two examples from my informant:

- (69) a. Abdul ne-a-ra-nyu-ir-ε ma-e?
 A. FM-SM-T-drink-ASP-FV 6-water
 Did Abdul drink water?
- b. ne ma-e Abdul a-ra-nyu-ir-ε ?
 FM 6-water A. SM-T-drink-ASP-FV
 Is it water that Abdul drank?

These differ from their assertive counterparts only in intonation.

Now, while it is clear that yes/no questions are straightforwardly related to assertions, they themselves surely are not assertions. If Bergvall was to extend her argument for constituent questions above to cases like (69b), it would certainly not make any sense: She would have to say that the person uttering the question in (69b) is asserting that it is water that Abdul drank. But that, of course, is not the point of asking that question, which is aiming to find out whether it is true that it was water that Abdul drank. It seems that some substantial modification is necessary to make Bergvall's account adequate in this respect.

Finally, even though Bergvall can account for a number of facts in a simpler manner than Clements, she does not really have any forceful reasons for us to accept her cleft-analysis, i.e. she can only show that such constructions are possible in Kikuyu, but not that all constructions involving focal *ne* have to be analyzed as clefts.

3.3.4.3 Conclusion

Given the comparison of these two accounts and considering the problems they each have, there seems to be no clear decisive reason to accept either one or the other. Both accounts have their intriguing aspects, but, as we have seen, they also both face some serious problems. The problems that Clements' account has to face are mostly of a rather technical nature, and they might be overcome by adjusting the formal mechanisms that are supposed to generate the right structures. Bergvall's account, on the other hand, is formally more simple and seems to make good predictions. It does face, however, the principle problem of the occurrence of *ne* in questions discussed in the previous section, and it is not clear what type of modification would solve this problem. In any case, it would have to be a substantial, not just a technical, change in her account.

So which account is more promising as a basis for further theorizing? In the next chapter, I will first provide some data that makes it impossible to keep up the cleft-analysis. In the remainder of the chapter, then, I will try to develop a theoretical account for focus constructions in Kikuyu that includes the assumption of a focus phrase in Kikuyu syntax but avoids the problems of Clements' account mentioned above.

4 New Evidence and a New FP-Analysis

The previous chapter has left us with an open question: How could we decide which analysis for the proposed *ne*-constructions would be more promising, Bergvall's cleft-analysis or Clements' focus phrase analysis? In this chapter, I will try to argue against the cleft-analysis, and propose a new version of the focus phrase analysis. In the first section, I will present new data from my informant, which will serve as a basis for an argument against the cleft-analysis. The discussion of this data will lead to a new account for the proposed *ne*-sentences in the second section. After sketching this new analysis, I present more data with different parts of the sentence in focus. This goes beyond what has been known in the literature up to this point and includes focus on the verb, the VP, and the entire sentence.

4.1 Arguments Against Analyzing Focal *ne*-Constructions as Clefts

What kinds of arguments could we hope to find to decide the question whether focus constructions involving *ne* are clefts or not? A reasonable approach would seem to be that we compare the alleged cleft-constructions with other, clearly bi-clausal constructions and test whether they show the same behavior. This is what I will do in this section, and the conclusion will be that the behavior of focus constructions differs from bi-clausal constructions in several respects, and therefore that the former are not bi-clausal, and hence not clefts.

The first and most important argument comes from the possibility of topicalization in connection with focus constructions and clearly bi-clausal constructions. This will be presented in the next subsection. A further argument involves an alternative type of focus constructions as

well focus constructions involving locative predication, and this will be presented in 4.1.2. Finally, the fact that questions with a preposed question word preceded by *ne* can participate in multiple interrogation can also be taken as evidence that these are not cleft-constructions.

4.1.1 Topicalization and Focus Constructions

Both Bergvall and Clements are aware of topic constructions in Kikuyu, and Bergvall (1987) actually dedicated a whole section to their discussion.⁵¹ However, neither one of them is looking at possible combinations of topic and focus constructions. Before we turn to this issue, let us look at simple topicalization constructions. Turning to complex sentences, we will see that the possibility of topicalization is subject to a clear restriction. This restriction, together with the possible combination of *ne*-focus and topicalization, will shed light on the structure of the focus constructions.

4.1.1.1 Simple Topicalizations and/or Left Dislocations

The typical examples of topicalizations in Kikuyu, as they are also noted by Bergvall and Clements, involve a left dislocation of an element, without *ne* preceding it (example taken from Clements 1984: 43):

- (70) a. mberε ya mo-te oó-reǎ Kámá.ú a-ón-íré Kaanáké¹
 front of 3-tree PP-DEM K. SM-see-T K.
 In front of that tree Kamau saw Kanake

Normally, the prepositional phrase *mberε ya mo-te oó-reǎ* would appear at the end of the sentence. This type of fronting is possible with about any postverbal constituent. As Bergvall notes, there is a difference between extracting human and non-human objects of the verb. The former require (more or less rigidly) that a resumptive pronoun is inserted in the verbal complex (which is realized as an object prefix), while this is optional in the latter case, as can be seen in (71) (Bergvall (1987b: 63), glosses modified by F.S.)⁵²:

- (71) a. mo-ǔuri mo-kǔrǔ ne-to-mw-ɔ:n-ir-ε mberε
 1-man 1-old FM-SM(1PI)-OM-see-ASP-FV first
 The old man, we saw him first
- b. ??mo-ǔuri mo-kǔrǔ ne-tu-ɔ:n-ir-ε mberε
 1-man 1-old FM-SM(1PI)-see-ASP-FV first
 The old man, we saw first
- c. ka-ɔ:ri ka-niini ne-to-ka-ɔ:n-ir-ε mberε
 12-goat 12-little FM-SM(1PI)-OP-(12)-see-ASP-FV first
 The little goat, we saw it first
- d. ka-ɔ:ri ka-niini ne-tu-ɔ:n-ir-ε mberε
 12-goat 12-little FM-SM(1PI)-see-ASP-FV first
 The little goat, we saw first

Bergvall argues that the distinction between Topicalization and Left Dislocation can be collapsed in Kikuyu. Left Dislocation, according to Bergvall, is distinct from Topicalization in that it requires a resumptive pronoun in the clause from which dislocated element has been extracted. She argues that in cases like (71d) there is a null pronominal, which is not implausible as non-human objects can regularly be realized as phonologically null pronouns (Bergvall 1987b: 50).

⁵¹ Note that the notion of topic is used in quite different ways in the literature. Here it simply is taken as a syntactic process, partly due to lack of discourse evidence for topichood in my data.

⁵² My informant judges both (b) and (d) as ungrammatical. Hence, Bergvall's distinction of human and non-human objects does not seem to be relevant to him.

But, on the other hand, one could argue that human objects are the only forms that require pronominal doubling when moved to the front of the clause. Temporal and locative adverbials, for example, which can be pronominalized with free standing pronouns, do not allow for pronominal doubling in these types of constructions, as Bergvall herself notes (Bergvall (1987b: 54, 56), her glosses):

- (72) a. nemaðiire reo
They left then
- b. ro:fi:ne, nemaðiire
This morning, they left
- c. * ro:fi:ne, nemaðiire reo
This morning, they left then
- (73) a. Wamboi neayitire kuɔ
Wambūi thatched there
- b. (?) Nyeri, Wamboi neayitire⁵³
(In) Nyeri, Wambūi thatched
- c. * Nyeri, Wamboi neayitire kuɔ
(In) Nyeri, Wambūi thatched there

The free pronouns can never be incorporated. This is only possible for object pronouns.

Fortunately, we do not have to ultimately decide at this point what the nature of the Topic or Left Dislocation structures is. First of all, that is not our central concern in this study, and secondly, we can form our argument on the basis of regular restrictions on this type of movement that are not dependent on an exact analysis. In the following section, I will use non-arguments in the examples, leaving it open whether these are topics or left dislocated elements. Shortly, we will see that there also is evidence for topicalization of subjects.

4.1.1.2 Restriction for Topicalization

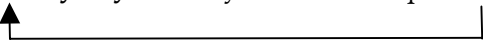

The first restriction we can observe is that relative clauses do not seem to allow for any type of topicalization at all, neither within the clause nor outside of it:

- (74) a. ... nyina oorea [wɔ-ɔn-ir-ε i-βuku mbere ya nyomba]
1.mother PP-DEM PP-see-ASP-FV 5-book in-front 9-ASS 9.house
... the mother, who saw the book in front of the house
- b. * ...nyina oorea [mbere ya nyomba wɔ-ɔn-ir-ε iβuku t]
↑
- c. * (...)mbere ya nyomba (...) nyina oorea [wɔ-ɔn-ir-ε iβuku t]⁵⁴
↑

In other cases of complex sentences, however, topic movement is also possible in embedded clauses that are introduced by a complementizer like *ate*. However, the movement has to take place within the clause introduced by *ate*:⁵⁵

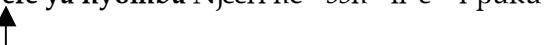
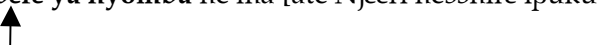
⁵³ Bergvall's informant(s) judge(s) this sentence as not being perfectly acceptable, my informant finds it okay, although there seems to be a slight, gradual distinction between (72b) and (73b). Fronted locatives seem to be better when a complex prepositional phrase, such as 'in front of the tree' in (70a), is used.

⁵⁴ The brackets indicate that this structure is impossible in the case of moving into sentence initial position as well as in the case of having it immediately precede the head of the relative clause.

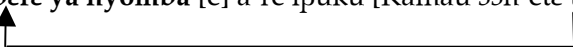
- (75) a. Abdul ne-uy-ir-ε [ate nyina ne-ɔ:n-ir-ε iβuku **mbere ya nyomba**]
 A. FM-say-T-FV that ?.mother FM-see-T-FV 5-book in-front 9-ASS 9.house
 Abdul said that (his) mother saw a/the book in front of the house.
- b. Abdul ne-uy-ir-ε [ate **mbere ya nyomba** nyina ne-ɔ:n-ir-ε iβuku t]

 Abdul said that in front of the house (his) mother saw a/the book.
- c. # **mbere ya nyomba** Abdul ne-uy-ir-ε [ate nyina ne-ɔ:n-ir-ε iβuku t]

 In front of the house, Abdul said that (his) mother saw a/the book.

Just as in the English paraphrase, (75c) can only be understood to mean that the event of Abdul saying something took place in front of the house, not that the event in the embedded clause took place there.

In sentences parallel to Bergvall's example in (65b) above, which also contains an embedded clause introduced by *ate*, we find the same pattern:

- (76) a. ne ma [ate Njɛeri ne-ɔ:n-ir-ε i-βuku **mbere ya nyomba**]
 FM true that N. FM-(SM)-see-ASP-FV 5-book in-front 9-ASS 9.house
 It is true that Njeri saw a/the book in front of the house.
- b. ne ma [ate **mbere ya nyomba** Njɛeri ne-ɔ:n-ir-ε i-βuku t]

- c.* **mbere ya nyomba** ne ma [ate Njɛeri ne-ɔ:n-ir-ε i-βuku t]


Finally, if we look at another structure that clearly seems to be biclausal, the embedded clefts formed with *are*, we also find that topicalization is not possible outside of the clause of the topicalized element, i.e. it can not appear in front of the cleft. (77a) is a variation of Bergvall's example in (63b):

- (77) a. e-ko-aria [ta [e] a-re iβuku [Kamau ɔ:n-et-ε **mbere ya nyomba**]]
 He speaks as if it is a book Kamau had seen in front of the house
- b. * e-ko-aria ta **mbere ya nyomba** [e] a-re iβuku [Kamau ɔ:n-et-ε t]


Whatever the exact analysis of (77b) would look like, it seems clear that the situation here is parallel to the case of the *ate*-clauses, namely that ungrammaticality shows up when the topicalized element is moved out of the clause.⁵⁶ In more or less informal terms, we can state the restriction observed in this section as follows

Restriction on Topicalization / Left Dislocation

Topicalization and/or Left Dislocation can only occur within the clause of the topicalized / left dislocated element.

⁵⁵ Note that this is different from the case of unbounded focus-movement, as we have seen it in Clements' examples above, e.g. in (43a).

⁵⁶ In (77), there also cannot be any movement within the furthest embedded clause, because it is a relative clause. As we have seen in (74), no topic movement is possible in relative clauses.

4.1.1.3 *Topicalization and ne-Focus*

Obviously, the restriction observed in the previous section can serve as a clear test for the nature of focus constructions involving *ne*. If these are clefts, and hence biclausal, as Bergvall claims, then it should be impossible to topicalize an element from the embedded clause by putting it in front of the clause initial *ne*. If it is possible, on the other hand, to put such topicalized elements in front of *ne*, this shows that *ne*-constructions are not biclausal, and hence not clefts.

As we already have seen in the beginning of chapter 3, there are focus constructions that have a sentence-initial subject followed by a focused constituent preceded by *ne*. Only after this comes the rest of the verbal complex. I claim that these structures are also examples of some sort of topicalization. They are possible not only with subjects, but also with other elements preceding the *ne*-focus construction.

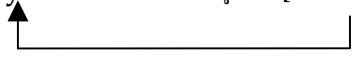
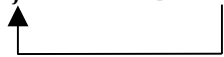
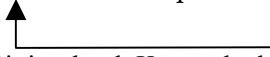
(78a) repeats the example in (25f) above (with an additional locative), which answers the question *Who read the book to the child in front of the house?* In (78b) a variation of this sentence is shown with another element in a topicalized position.

- (78) a. Abdul ne mw-ana a-ðom-aγ-er-a i-βuku mberε ya nyomba
 A. FM 1-child SM-read-HAB-APPL-FV 5-book in-front 9-ASS 9.house
 It is a child that Abdul (usually) reads a book to in front of the house.
- b. mberε ya nyomba ne mw-ana Abdul a-ðom-aγ-er-a i-βuku
- c. mberε ya nyomba Abdul ne mw-ana a-ðom-aγ-er-a i-βuku

As can be seen in (c), it also is possible for more than one constituent to appear before the preposed *ne*-focus. This type of topicalization of the subject (or some postverbal element) is possible in all focus constructions involving a fronted constituent preceded by *ne*, be it an element in focus or a question words. The following list illustrates this possibility for the other examples from section 3.1 in chapter 3:

- (79) a. Abdul ne-kee a-ðom-aγ-er-a mw-ana?
 A. FM-what SM-read-HAB-APPL-FV 1-child
 What does Abdul read to the child?.
- b. Abdul ne i-βuku a-ðom-aγ-er-a mw-ana
 A. FM 5-book SM-read-HAB-APPL-FV 1-child
 It is a book that Abdul reads to the child.
- (80) a. Abdul ne-ko εnd-er-iri-ε γε-tonga nyomba?
 A. FM-where (SM)-sell-ASP-FV 7-rich person 9.house
 Where did Abdul sell the house to the rich person?
- b. Abdul ne Nairobi εnd-er-iri-ε γε-tonga nyomba
 It's in Nairobi that Abdul sold the house to the rich person
- (81) a. Abdul ne-re εnd-er-iri-ε γε-tonga nyomba?
 A. FM-when (SM)-sell-APPL-ASP-FV 7-rich person 9.house
 When did Abdul sell the house to the rich person?
- b. Abdul ne ira εnd-er-iri-ε γε-tonga nyomba
 It was yesterday that Abdul sold the house to the rich person

When we turn to the biclausal constructions discussed in the previous section, however, it is not possible to move the subject outside of its clause:

- (82) a. * **nyina** Abdul n e-uy-irɛ [ate t neɔ:nirɛ i-βuku mberɛ ya nymoba]

 Abdul said that the/his mother saw a book in front of the house
- b. * **Njeeri** ne ma [ate t ne - ɔn - ir-ɛ i-βuku mberɛ ya nyomba]

 It is true that Njeeri saw a book in front of the house
- c. * ekoaria [ta **Kamau** [e] a-re i-βuku [t ɔn-ete mberɛ ya nyomba]]

 He speaks as if it is a book Kamau had seen in front of the house

Bergvall's analysis assumes that *ne*-focus sentences and sentences like (82b) and (c) have the same structure, namely the one given in (60) above. If this was true, there would be no clear explanation why *ne*-focus sentences do allow for topicalization of the subject or other elements into a position preceding the alleged cleft, and sentences like (82b) or (c) do not. Therefore, there seems to be good reason to assume that these two types of structures are different.

Interestingly, embedded clauses introduced by *ate* display the same variation in *ne*-focus constructions and topicalizations as main clauses:

- (83) a. Abdul ne-uyirɛ [ate ne i-βuku nyina ɔ:n-irɛ mberɛ ya nymoba]
 A. FM-(SM)-say-ASP-FV that FM 5-book mother (SM)-see-ASP-FV front ASS 9.house
 Abdul said that it was a book that the/his mother saw in front of the house.
- b. Abdul ne-uyirɛ [ate **nyina** ne i-βuku ɔ:n-irɛ mberɛ ya nymoba]
- c. Abdul ne-uyirɛ [ate **mberɛ ya nymoba** ne i-βuku nyina ɔ:n-irɛ]

(83a) shows the 'normal' focus construction in the embedded clause, with initial *ne*. In (b), the subject *nyina* is moved to a position preceding the focus, and in (c) the locative phrase *in front of the house* is moved into the initial position of the embedded clause, preceding *ne*.

4.1.1.4 Conclusion

Given the phenomena presented in the last subsection it seems reasonable to conclude that *ne*-focus constructions are not biclausal, and hence not clefts. Furthermore, the different behavior of relative clauses and embedded clauses introduced by *ate* can be used to support Clements' claim that relative clauses have IP as their highest node, while *ate*-clauses are CP's. This is plausible if we assume that the type of movement we have presented in this section, be it topicalization or left dislocation, is movement to the C-domain.⁵⁷ If a clause does not contain a CP, topicalization is impossible, just as *ne*-focus is impossible in the same clauses (for the same reason). These considerations will be picked up when we turn to a new analysis.

For now it suffices to note that the different behavior of *ne*-focus constructions and biclausal constructions can be easily explained if we assume the former to be mono-clausal.

4.1.2 Locative Focus and an Alternative Focus-Construction

A further argument against a biclausal analysis of focus constructions involving *ne* comes from phenomena related to locative focus and to an alternative focus construction.

As we have seen above, the verb *-re* is used in constructions in which the predicate expresses the location of the subject. This is again exemplified in (84):

⁵⁷ If topicalization and left dislocation turn out to be distinct, the former could plausibly be assumed to be movement into Spec-CP, while the latter might be adjunction to CP.

- (84) a. Kamau a-re Nairobi.
 K. SM-be-in N.
 Kamau is in Nairobi

This same form is also used in the case of a phonologically null anaphoric subject, as the second sentence in the following example shows:

- (85) a. Kamau ne-a-hor-ir-ε ðimo omoði. a-re Nairobi
 K. FM-SM-call-ASP-FV phone today. SM-be-in N.
 Kamau called me today. He's in Nairobi.

Based on this example, we might expect that in cases where a location is the preposed focus, the verb form *are* would appear as well (as in (86b)), if we assume that the fronted part of the sentences consists of a cleft. But this is not the case. In all cases of focus on an expression for a location, *ne* is used when the construction involves preposing the fronted constituent. Hence, only, (86c) is an appropriate answer to the question in (86a):

- (86) a. neko Kamau are?
 b. * are Nairobi Kamau
 c. ne Nairobi Kamau are

This evidence may not be sufficient by itself to decide the question whether (c) is a cleft or not. But it can serve as another argument against the cleft-analysis if we consider how a focus phrase-analysis can explain this fact. The reason for the ungrammaticality of (b) becomes clear when we analyze the structure in (c) as a focus phrase introducing *ne* and *Nairobi* as being moved from its base position (which is postverbal) into the position for the focused element. Naturally, the verb *are* is then in the wrong place in (b), because only the focus marker *ne* can appear in this position.

Another, similar, argument comes from an alternative focus construction that we have not mentioned yet. In addition to a preposing of the focused element it involves the insertion of a pronominal expression:

- (87) a. Noo Kamau ɔɔnirɛ?
 Who did Kamau see?
 b. Abdul ne we Kamau ɔɔn-ir-ε
 A. FM 3Sg.PRON K. (SM)-T-see-ASP-FV
 It is Abdul (that) Kamau saw
 c. Kamau Abdul ne we ɔɔnirɛ⁵⁸

As can be seen in (b), the focused element actually precedes *ne* in this construction, and the pronoun showing concord agreement with the focused element immediately follows *ne*. Considering Bergvall's analysis, we might assume that here we really have encountered a type of cleft-construction (which could be paraphrased as *Abdul is the one (that) Kamau saw*), but the data in (87c) indicates that this is not the case, at least if the argument in the previous section is correct. An analysis for this construction will be discussed in 4.2.10. But for now, let us look at the interesting case where this construction involves a first person singular pronoun in focus. The following example shows the according form and an appropriate question context.

- (88) a. Noo w-ɛnd-iri-ε nyomba?
 FM-who PP-sell-ASP-FV 9.house
 Who sold the house?

⁵⁸ It should be noted that my informant did not like this sentence as much as topic-focus combinations of the type discussed up to this point.

- b. *nie* *ne* *nie* *nd-ɛnd-iri-ɛ* *nyomba*
 1Sg.PRON FM 1 Sg.PRON SM-sell-ASP-FV 9.house
 It is me who sold the house. *or*:
 I am the one who sold the house

If the construction in (88b) would involve a true copula construction, we would expect that the regular first person present tense form for the copula appears, as exemplified in (89):

- (89) a. *nde* *moremi*
 1Sg.COP 1-farmer
 I am a farmer

But instead, the construction in (88b) uses the particle *ne*. Hence, not even this type of construction, which very much looks like it involves some form of clefted copula construction, seems to contain a copula.

Just how these constructions are to be analyzed is unclear at this point. But if we consider the fact that *ne* appears here, and also in similar cases involving a first person plural or a second person (singular or plural) pronoun, which all come with forms for the copula verb distinct from *ne*, or rather, distinct from the zero verb form found for the third person, there does not seem to be a way to analyze this as involving a cleft.

Taking into account these two cases - the one of locative focus and the one of the alternative focus construction in (88b) - it seems like we can turn around Bergvall's argument, claiming that there are cases where a cleft-analysis is not possible for *ne*-focus constructions, and extending the alternative account of *ne* as a focus marker to other constructions involving a fronted constituent preceded by *ne*. This will result in a more adequate account as the possibility of topicalization can be explained.

4.1.3 Multiple Wh-Questions

Yet another reason against analyzing the *ne*-constructions with a preposed constituent as clefts can be seen in the fact that such constructions can participate in multiple wh-questions:⁵⁹

- (90) a. *Noo* *w-ɛnd-iri-ɛ* *kee?*
 FM-who PP-sell-ASP-FV what
 Who sold what?

There do not seem to be any restrictions on multiple wh-constructions. If the subject is one of the wh-elements, then it has to be the element that is preposed with *ne*. This is not surprising, since subject wh-elements always have to be preposed. It seems like there are no superiority effects, i.e., if there are multiple postverbal wh-elements (and the subject is not wh), then any (or none) of these elements can be preposed. It also seems like these multiple wh-questions come with both a pair-list and a single pair reading. However, these issues need to be investigated more thoroughly than it was possible for me to do.

What is important for our argument at this point is that it is (at least) extremely uncommon to have multiple wh-constructions that involve a cleft-fronting strategy for one of the wh-elements. This is, for example, not possible in German or English:

- (91) a. * Who is it that sold what?
 b. * Wer ist es, der was verkauft hat?

If the generalization that clefts cannot participate in multiple questions is correct, then the possibility of fronted wh-constructions in Kikuyu to participate in multiple wh-constructions speaks against the cleft-analysis.

⁵⁹ Thanks to Anna Szabolcsi (p.c.) for pointing this out to me.

4.2 A New Account of Focus Constructions in Kikuyu

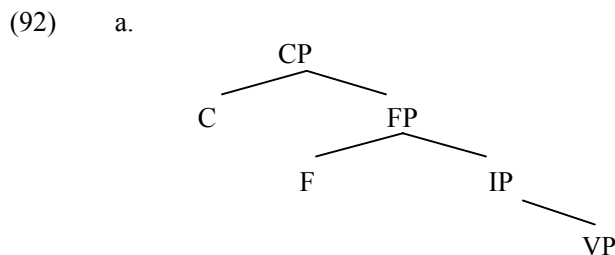
The arguments in the preceding section showed that focus constructions with a preposed constituent preceded by *ne* cannot be analyzed as clefts. Therefore, we should come back to Clements' idea of introducing a focus phrase into Kikuyu phrase structure. Doing this, we also should address the problems we have found with Clements' account.

In the following subsection I will propose a general phrase structure for Kikuyu sentences that involves a focus phrase, but avoids the problems of Clements' account. In the subsequent sections, I will consider how different elements can be put in focus, presenting new data for a number of constructions. The goal throughout this is, of course, to try to explain the data within the theoretical approach outlined in the next subsection. However, I will also present some data for which I can give no explanation, but which should be interesting for further research. Towards the end of this section, I will also consider the question of contrastive focus, and the alternative focus construction mentioned in the last section.

4.2.1 Syntactic Focus Marking in Kikuyu

Taking a step back and considering the data we have discussed so far, it should be noted that both Bergvall's and Clements' accounts take focus to be determined by syntactic (or morphosyntactic) factors. And indeed, the variation in possible expressions for question-answer sequences mainly occurred in the order of the elements in a sentence. This is different from cases like English or German, for example, where there also can be some syntactic variation related to focus, but where the main factor is intonation, namely the placement of the pitch accent. But as we have mentioned in chapter 2, there are many other languages for which it has been argued that there is a syntactic position reserved for focus, so called discourse configurational languages (cf. Kiss (ed.) 1995). We discussed the example of Hungarian to illustrate this property. In (19) we saw the two variations on the assumption of a focus phrase in Hungarian syntax, either immediately dominating VP or IP.

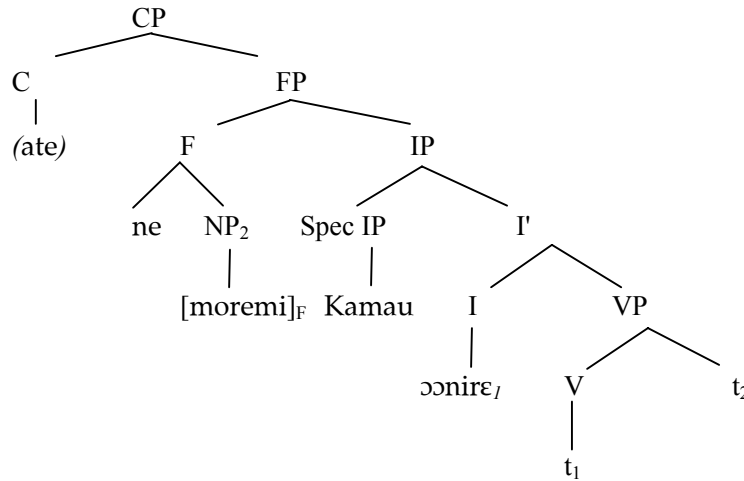
The central idea that we can adopt from such approaches dealing with syntactic, or structural, focus is the position of the focus phrase.⁶⁰ One problem of Clements' account was that the element moved into the focus position did not c-command its trace, a requirement that most syntactic theories would posit in one way or another. This problem evolved because the focus phrase was embedded in the CP (or S') in Clements' proposal. Adopting the common assumption (illustrated in (19) above) that the focus phrase is situated between the CP and the IP, or alternatively, that it either immediately dominates the IP or the VP, we can avoid this problem. Thus, the general phrase structure for Kikuyu should be something like the following:



This also accounts for the right word order in the case of embedded clauses, with the complementizer preceding the focus phrase (this was one of the problems Bergvall saw with the assumption of a focus phrase in CP), while still leaving room for the subject to appear after the focus, presumably in SpecIP. Hence, for the analysis of preposed focus constructions with *ne*, we could, in a first attempt, propose the following structure:

⁶⁰ Horvath (1995) actually already argued for Kikuyu (which in many respects is similar to Hungarian in terms of the expression of focus) that it has a similar phrase structure involving a focus phrase.

- (93) a. (ate) ne [moremi]_F Kamau ɔɔnirɛ⁶¹
 (that) FM 1-farmer K. (SM)-T-see-ASP-FV
 (that) it was a farmer Kamau saw.



It should be noted that this analysis would need further refinement to be fitted into more elaborate and detailed syntactic frameworks. Crucially, the internal structure of the focus phrase most likely has to be modified. In the Hungarian syntax literature on focus, it is normally assumed that the position for the focused element is the specifier of the focus phrase, SpecFP. The question then is what exactly *ne* is in such a theory. As Horvath (1995: 41) points out, one cannot assume that *ne* is the head of the focus phrase and that the focused element moves to SpecFP, because that would get the word order wrong, with *ne* appearing after the focused element. Alternatively, Horvath suggests to analyze *ne* as the feature [+F], which appears in SpecFP, preceding the focused constituent. This might be a better alternative, at least if it can be fitted into a framework where this really adds to the explanatory adequacy of the account, and does not just ‘get the word order right’.⁶² As I have not used a syntactic framework in this study that works with feature-checking mechanisms, I will simply leave the internal structure as an open question, assuming that there still is some merit in arguing for a focus phrase analysis of Kikuyu that needs refinement.

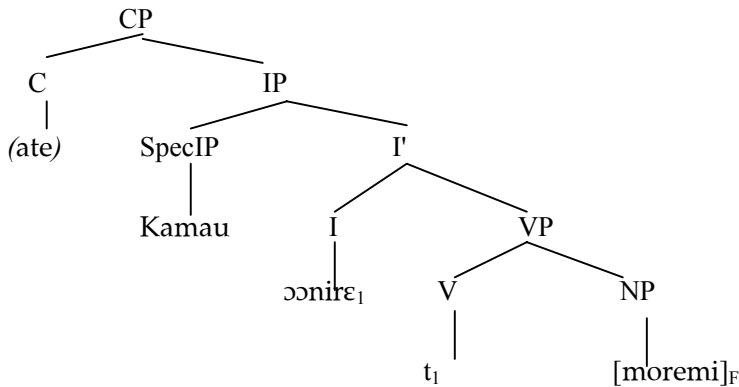
In addition to the ex-situ focus construction, we also have found in-situ focus. This type of in-situ focus is generally on a postverbal element. In simple sentences containing transitive verbs, the object will be in focus. If we would want to analyze these cases in a parallel way, we could assume a similar structure, just without object movement and with a covert focus operator in place of the overt focus marker *ne* that assigns focus to the postverbal position. However, the simpler alternative might be to assume that FP is only an optional projection (as in Clements’ phrase structure rules above) and that it is not present whenever *ne* is not present. focus is then assigned to a postverbal element whenever *ne* is not present.⁶³ The phrase structure of a sentence without *ne* would then be simpler, not containing an FP:

- (94) a. (ate) Kamau ɔɔnirɛ [moremi]_F

⁶¹ Henceforth, I will mark the focus of a sentence (as determined by the context) with brackets and a subscript *F*, following the assumption that there is a syntactic feature [F] that marks focus (Jackendoff 1972). In the rare cases, where the (focus-determining) context of the sentence is not given explicitly, it can be constructed by asking for the focused constituent.

⁶² There might be a problem, however, with the alternative focus construction introduced in 4.1.2. (which is discussed again in 4.2.10).

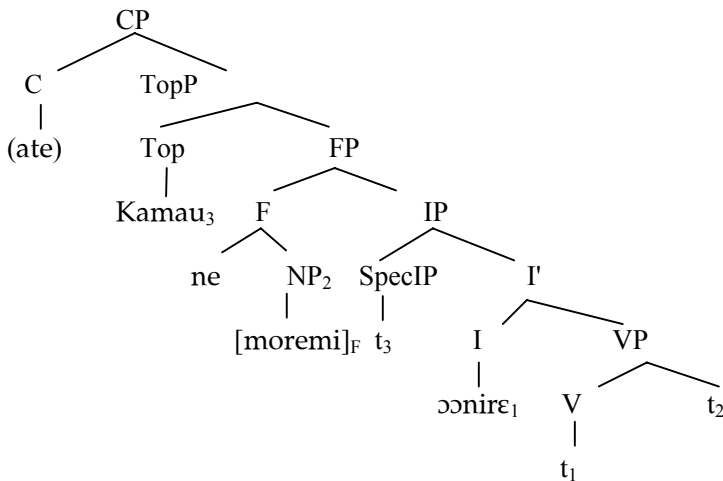
⁶³ This phenomenon, by the way, poses another serious problem to the cleft-analysis: If *ne* (be it preverbal or with a preposed constituent) is assumed to be an assertion marker, as claimed by Bergvall, then it is unclear why the absence of *ne* should trigger focus on a postverbal element.



It should be noted at this point that it is unclear how the focus is determined when there is more than one postverbal element. It may be that such structures are simply ambiguous, because there is no clear evidence that there are tonal differences between these cases.

Looking just at the formal mechanism involved here, we have to ask ourselves how we could generate the preverbal occurrence of *ne*. Before we try to answer this question, we should recall the data on topicalization and left dislocation from above. It is not a goal of this study to determine the exact internal structure of the topicalized or left dislocated element, though that would be an interesting topic for further research.⁶⁴ But at least one thing is clear with respect to them: They have to end up in some position between the complementizer position and the focus phrase. The evidence for this comes from embedded clauses introduced by *ate*, which allow for a subject (or some element that is normally in some postverbal position) to precede the *ne*-focus phrase. To account for this, then, I will assume a topic phrase between the CP and the FP, into which topicalized elements can go.⁶⁵ As already mentioned, we may have to distinguish between left dislocated elements and topicalized elements, but the details concerning the topic phrase will be ignored here. A clause (non-embedded or embedded by *ate*) with a topicalized and a preposed focused element then would have the following structure:

- (95) a. (...ate) Kamau ne [moremi]_F ɔɔnirɛ
 (...that) K. FM 1-farmer (SM)-T-see-ASP-FV
 (that) it was a farmer Kamau saw



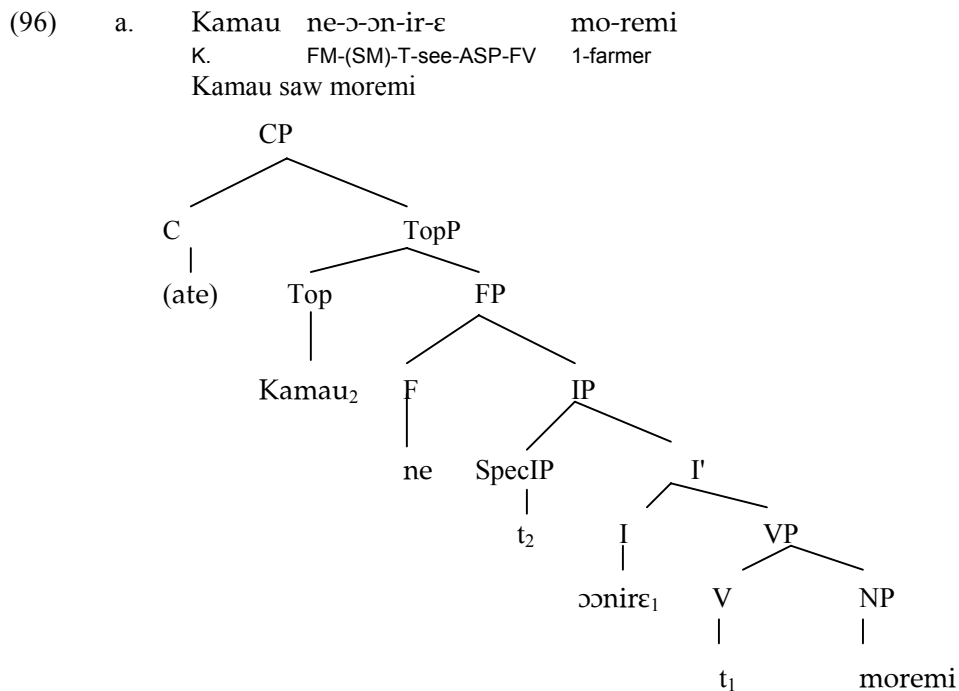
⁶⁴ Possibly the distinction between internal and external topic, as it has been proposed for Mayan by Aissen (1992), could be applied here.

⁶⁵ Similar claims have been made for Hungarian (most recently in Puskás (2000), chapter 3). If we would find further discourse evidence for the topichood of these fronted constituents, this would mean that Kikuyu was discourse configurational in respect to topic as well (see chapter 2).

If we assume that there is some kind of position for the subject to move into, as in (95), then this also might be the solution for the generation of preverbal focus. If the subject is moved into the topic position and everything else stays in place, then we get the correct linear order for constructions involving preverbal *ne*. It might actually be reasonable to assume some other movement, e.g. of the verbal complex or of a speech act or truth operator into the focus position. But these should not affect the linear order of the surface structure. We will come back to these questions in the section on sentence and verum focus.

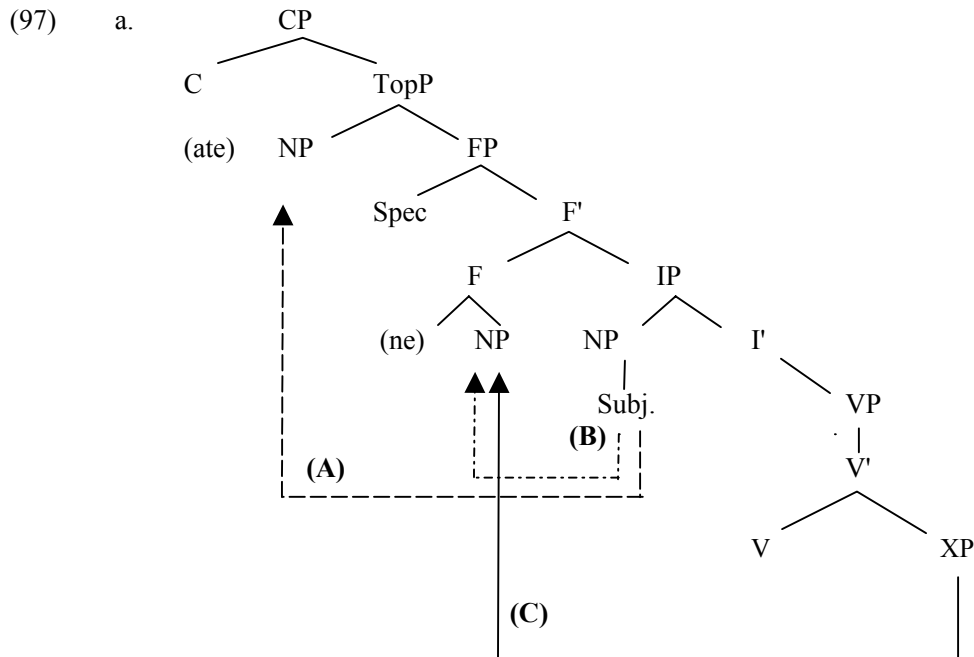
In principle, we also can account for the case of *ne* in copula constructions. The right word order would be obtained, for example, if we assume that *ne* there appears in preverbal position, with the actual verb being phonologically null. There are some problems, however, in connection with copula constructions, which I will discuss in section 4.2.7. Nonetheless, the account proposed here can account for the constructions at least to the same extent as Bergvall's analysis.

For now it should suffice to show that we can easily provide the right word order for the case of preverbal focus and *ne* in copula constructions as well. Note that it is not necessary to assume any movement of *ne*, as was done by Clements. Since we have independent evidence for movement of the subject into some kind of topic position, it seems reasonable to also posit this movement in the case of preverbal *ne*. The motivation for this movement is that the subject would be in the way between *ne* and the verb. If it would stay in its position and *ne* would be inserted in the sentence, then we would get a subject-focus sentence. Therefore the subject has to move in order to get a sentence with the meaning of preverbal *ne*.⁶⁶ The structure would then be as follows (leaving open the question of movement of the verb or something else):



The full range of variation in connection with the projections introduced here can then be described in general terms in the following scheme:

⁶⁶ What type of focus is involved in the case of preverbal *ne* will be discussed in section 4.2.6.



Movements A and B as well as B and C exclude one another, as one element can only undergo one of the movements and only one element can move to the same position. To get preverbal *ne*, movement A will be sufficient for the right word order. For preposed focus on the object, we can assume movement C. To have the subject precede the preposed focus, we simply add movement A. Copula constructions can be accommodated in this model in two ways: Either *ne* occurs preverbally (which requires movement A), and *ne*, due to the phonologically null form of the copula verb, appears next to the predicate, or both movements A and C take place, which also will result in the right word order (see section 4.2.7. below for some problems with these predictions).

Taking this structure as the basis of the variation in questions and answers, I will present new data in the next section and will consider how this analysis works out with different types of questioned and focused elements.

4.2.2 Object Focus

4.2.2.1 Transitive Verbs

We already have seen cases of object focus in sentences with ditransitive verbs. One interesting thing is, of course, that the question word shows the same variation in its position as the focused element. So the according questions that the object-focus sentences in (93) to (95) answer are as follows⁶⁷:

- (98) a. N[oo]_F Kamau ɔɔnirɛ?
 FM-who K. (SM)-T-see-ASP-FV
- b. Kamau ɔɔnirɛ [oo]_F?
 K. (SM)-T-see-ASP-FV who
- c. Kamau n[oo]_F ɔɔnirɛ?
 K. FM-who (SM)-T-see-ASP-FV
 all meaning: Who did Kamau see?

⁶⁷ Mostly, it seems like questions and answers of the same structure are at least preferred. I will discuss this issue briefly in section 5.3. in chapter 5.

Another point worth mentioning is that our choice of moving the entire NP (or DP, depending on your terminology) in the trees in (93) and (95) is motivated by the fact that complex objects will move into the focus position as a whole, as can be seen in the following example, which also is an answer to the question in (98a):

- (99) a. [ne mo-remi mo-koro oorea]_F Kamau ɔɔnɪɾɛ
 FM 1-farmer 1-old PP-DEM K. (SM)-T-see-ASP-FV
 It was this old farmer (that) Kamau saw.

Moving only part of the complex NP would not render a grammatical sentence.

The same patterns that we have seen for the example used so far can also be found for other types of objects, e.g. for directional arguments:

- (100) a. Ne[ko]_F Kamau a-ð-ir-ɛ?
 FM-where K. SM-go-ASP-FV
 Where did Kamau go?
- a'. Ne [ðokoine]_F Kamau aðɪɾɛ.
 FM 9-market-DIR K. SM-go-ASP-FV
 Kamau went to the market.
- b. Kamau aðɪɾɛ [ko]_F?
 b'. Kamau aðɪɾɛ [ðokoine]_F.
 c. Kamau ne[ko]_F aðɪɾɛ?
 c'. Kamau ne [ðokoine]_F aðɪɾɛ.

4.2.2.2 Ditransitive Verbs

Naturally, the number of possible constructions is even bigger for ditransitive verbs. Apart from the pattern for the object adjacent to the verb, which is the same as in transitive verb constructions, there also are all three possible patterns for the second object:

- (101) a. Ne-[kee]_F Abdul a-ðom-aɣ-ir-a mw-ana?
 FM-what A. SM-read-HAB-APPL-EV 1-child
 What did Abdul read to the child?
- a'. Ne [ibuku]_F Abdul a-ðom-aɣ-ir-a mw-ana?
 FM 5-book A. SM-read-HAB-APPL-EV 1-child
 It was a book (that) Abdul read to the child.
- b. Abdul aðomaɣira mwana [kee]_F?
 b'. Abdul aðomaɣira mwana [ibuku]_F.
 c. Abdul ne[kee]_F aðomaɣira mwana?
 c'. Abdul ne [ibuku]_F aðomaɣira mwana.

Here, of course, the question comes up of how the postverbal focus is determined in (b'), given that the answer to the question asking for *mwana* (*child*), can have the same word order.⁶⁸ One possibility might be that there is a tonal (or intonational) distinction between the two answers to different questions. However, up to this point, there is no evidence that there is a difference in tone between the two relevant cases, although there might be other intonational differences. Otherwise, sentences like (b') may simply be ambiguous.

⁶⁸ Note that this ambiguity is not only one where focus projection can take place to different extents (as we will see in the section on VP-focus), but one where different narrow foci are possible.

There is yet another possibility for the question and answer focusing the human (and in general, the first) object. In addition to the three expected patterns, a fourth pattern exists where the human object, or the question word asking for it, appear to the right of the second object. This will result in unambiguous focus on the human object:

- (102) a. Abdul aḍomayira ibuku [oo]_F?
 b. Abdul aḍomayira ibuku [mwana]_F.

As my informant noted, (102b) is a somewhat rare answer, given that in normal every day discourse the arguments given in the question would be pronominalized, so that (b') would be the most natural answer to (a)⁶⁹:

- (102) b'. a-re-ḍomayira [mwana]_F.
 SM-OM(cl.5)-read-HAB-APPL-FV 1-child
 He read it to the child.

But nonetheless, (102b) is a possible, grammatical sentence, if, and only if, *mwana* is in focus. The question then is, of course, where the right-moved object moves to.⁷⁰ And if we consider (101b'), a sentence containing a ditransitive verb with basic word order of its objects, how can we account for the fact that this sentence allows for either object to be in focus⁷¹, while the latter only is acceptable when the right-moved object is in focus? Presently, I do not have an explanation for these phenomena of postverbal focus, and can only describe them here.⁷²

4.2.3 Subject Focus

As we saw in the first section of this chapter, questions asking for the subject, as well as their answers, are exceptions to the general possibility of having two different types of constructions, one in-situ, and one preposed with *ne*. There is only one possible construction for subject questions, and that is the one involving *ne*:

- (103) a. n-[oo]_F o-ḍom-aγ-er-a mw-ana i-βuku?
 FM-who SM-read-HAB-APPL-FV 1-child 5-book
 Who read the book to the child?
- b. ne [Abdul]_F o-ḍom-aγ-er-a mw-ana i-βuku
 It is Abdul who read the book to the child
- c. * [oo]_F a-ḍom-aγ-er-a mw-ana i-βuku
- d. * [Abdul]_F a-ḍom-aγ-er-a mw-ana i-βuku

Why is it that (c) and (d) are ungrammatical with the element in subject position in focus? One possible answer to this question could be based on the observation that in the case of object questions, all the possible positions for the question word and the focused element are such that they can receive focus. More precisely, it seems that the only preverbal position that can receive focus is the one in the focus phrase, while elements in postverbal position can all receive focus (when no *ne* appears in the sentence). If this is correct, we have a good explanation for the ungrammaticality of (c) and (d), at least if we assume that question words in Kikuyu have to be in a position where they can receive focus. The reason then, why the question in (c) is impossible is that the question word is not in a position where it can receive focus. Namely, it would be in the

⁶⁹ It should also be noted that this pronominalization of the second object is only possible in this configuration, where the first object appears to its right and is in focus.

⁷⁰ That is, if we assume at all that movement to the right has taken place. Lisa Cheng (p.c.) suggested to me that we might rather be dealing with some type of object shift.

⁷¹ The question word *oo* would appear in the same in-situ position as the human object.

⁷² see also Bergvall (1987a) on the issue of right moved questions

supposed subject position in SpecIP, whereas in (a) we would assume movement into the focus phrase. The same is the case with the focused subject in (d). As soon as it moves to the focus position, it is necessary for *ne* to precede it. Hence, (d) is not a possible Kikuyu sentence when the subject is supposed to be in focus.

From a cross-linguistic perspective, it is no surprise that focus on a subject has to be marked explicitly, as subject focus is generally rarer. Subjects have a strong tendency to refer to entities that are already introduced in the discourse. Hence they are likely to be part of the background, and often are the topic. This cross-linguistic tendency also makes it plausible that the normal subject position cannot be assigned focus in Kikuyu.

4.2.4 VP-Focus

4.2.4.1 Intransitive Verbs

One way of putting a VP into focus involves constructions with control verbs like *want*. In the case of intransitive verbs, we find the same pattern for the lower VP that we have found for objects of the verb, though with a slight variation. When the verb is preposed with *ne*, an overt copy may remain in the in-situ position:

- (104) a. *ne atea Abdul a-r-end-a yw-ek-a?*
 FM what A. SM-T-want-FV SM(INF)-do-FV
 What does Abdul want to do?
- b. *ne [ko-nyu-a]_F Abdul a-r-end-a*
 FM SM(INF)-drink-FV A. SM-T-want-FV
 Abdul wants to DRINK.
- c. *ne [ko-nyua]_F Abdul arenda konyua*
- (105) a. *Abdul arenda yweka atea?*
 b. *Abdul arenda [konyua]_F*

In (104b), we see the same form as in the case of preposed objects (or other elements) in focus. The interesting thing in (104c) is that the verb *konyua* appears twice. This suggests that the movement we have talked about so far in fact is a copy and deletion process.⁷³ For some reason, the deletion does not have to take effect in the case of (104c). In (105) we can see that the postverbal focus construction works just as well in the case of VP-focus, i.e. in-situ focus marking of a VP that appears under a control verb takes place in the same way as object focus marking in the case of transitive verbs.

Why should it be that cases like (104c) allow for the verb *konyua* to appear in-situ and in the focus position at the same time? The direction of the answer might become more clear when we take a look at simple intransitive sentences without a control verb:⁷⁴

- (106) a. *ne atea Abdul ek-ir-ε?*
 FM what A. (SM)-do-ASP-FV
 What did Abdul do?
- b. *ne [ko-nyua]_F Abdul a-nyu-ir-ε*
 FM SM(INF)-drink A. (SM)-drink-ASP-FV
 Abdul DRANK.

In this case, it is obligatory for the verb to appear in its base position. The reason here seems fairly obvious: Since the verb appears in the focus position in its infinitive form, and since the

⁷³ This was indeed already suggested by Clements (1984).

⁷⁴ See Bergvall (1987: 136) for a similar example. She also notes that similar constructions can be found in other African languages, e.g. in Yoruba and Temne, and gives Bynoe-Andriolo (1975) as a reference.

verbal complex normally contains information at least about subject, tense and aspect, it would seem just about impossible to completely delete the verb in its base position (cf. Bergvall 1987: 136-137). Note that while this is to some extent similar to do-support in English, it is not possible to use the verb *ek-ir-ε*, (the inflected form of the verb *do*), as it appears in the question, in place of the inflected form of *drink*. The construction in (104c) seems analogous in one way, but is, of course, different in respect to the morphological information on the verb. Since it appears in the infinitive in its base position in (104c), it does not have to appear there when put into preposed focus. Nonetheless, this double occurrence of the verb is optional in that case.

There is another interesting piece of data related to this, with an infinitive in postverbal position. According to Bergvall (1987: 139) and Barlow (1951: 127), this conveys a particular kind of emphasis, as indicated in the following example (adopted from Barlow (1951: 127)):

- (107) a. to-haat-et-ε ko-haat-a
SM(1PI)-sweep-ASP-FV SM(INF)-sweep-FV
We have swept thoroughly.

Barlow describes the infinitive here as being “used adverbially before any tense of the same stem to express slight emphasis” (Barlow 1951: 127). My informant judged this construction to be at least very rare in use, although he would be able to understand it. Interestingly, however, this would not be an adequate answer to the question *What did you do?*, i.e., this construction does not express VP-focus in the appropriate question context. It therefore seems like it is not a construction analogous to the examples containing a preposed verb.

4.2.4.2 Transitive Verbs

Turning to VPs containing a transitive verb, there is an interesting change in focus marking compared to intransitive verbs. Now it is not the verbal complex that is formally marked for focus (i.e., moved into a focal position), but rather the object of the verb. Hence, we seem to be dealing with a case of focus projection, where focus marking of the object can express focus on the entire VP:

- (108) a. Abdul ek-ir-ε atea?
What did Abdul do?
b. Abdul [a-nyu-ir-ε ma-e]_F.
A. SM-drink-ASP-FV 6-water
Abdul drank water.
- (109) a. ne atea Abdul ek-ir-ε?
b. ne [mae]_F Abdul [a-nyu-ir-ε]_F
c. Abdul ne [mae anyuire]_F

Note that F-marking here was done on the basis of the question context. Structurally, following the analysis proposed here, only the object is in a position where it can receive focus. Only after that has been done can the focus be projected onto the entire VP.⁷⁵ That this is possible in (109b) is particularly interesting, given that the phrase in focus, i.e. the VP, is realized discontinuously in its surface form.⁷⁶

⁷⁵ It is an important task for future research to determine the rules for focus projection in these types of examples.

⁷⁶ As Manfred Krifka pointed out to me, this could be similar to certain cleft-constructions in French that can also indicate focus on a constituent larger than the one moved to the cleft, as the following example from Lambrecht (1994) shows:

a. What happened?

In the case of a pronominal object, focus on the VP has to be expressed by preposing the verbal infinitive, just as was the case for transitive verbs:

- (110) a. ne atea Abdul ekire?
 b. ne kohora amohorire
 FM SM(INF)-beat SM-OM-beat-ASP
 He beat him.
 c. * ne komohora ahorire
 OP
 d. ? ne komohora amohorire
 OM OP

It is interesting that the pronominal object marker cannot be marked on the copy of the verb in the preposed position. One can observe a similar phenomenon in languages that mark focus by pitch accents. In these, it is usually not possible to have a pitch accent on a pronoun, which generally is attributed to the fact that pronouns refer to a discourse referent that has already been introduced in the discourse, which makes the pronoun GIVEN in the sense of Schwarzschild (1999). Nonetheless, the sentence in (c) gets slightly better if the object marker occurs both on the preposed and the in-situ copy of the verb (d).

While it was impossible to prepose the entire VP in the simple transitive sentence above, this is possible in some restricted cases, for example in the following question context:

- (111) a. What happened to Abdul? Why is he wet?
 b. ne [konyua mae]_F Abdul anyuire
 FM SM(INF)-drink 6-water A. SM-drink-ASP
 Abdul drank WATER.

The difference between this example and the previous is not quite clear, but it is interesting that there is the possibility of preposing the entire VP. Note that the object NP *water* is not repeated in the in-situ position. This speaks in favor of the idea that the only reason that the copy of the verb in the in-situ position only serves to bear tense and agreement information.

The pattern for a VP embedded by a control verb is the same as in simple transitive sentences. We again find the possibility of focus projection from the preposed object onto the VP that is in focus due to the question context.:

- (112) a. ne atea Abdul a-r-e(n)da gw-eka?
 What does Abdul want to do?
 b. Abdul ne[mae]_F a-r-e(n)da [konyua]_F.
 Abdul wants to drink water.
 c. # ne[konyua mae]_F are(n)da konyua
 d. # ne[konyua]_F are(n)da konyua [mae]_F⁷⁷
- (113) a. Abdul arenda gweka atea?
 b. Abdul are(n)da [konyua mae]_F

b. J'ai ma VOITURE qui est en panne
 'I have my car which is in trouble', meaning *My car broke down*.

Here, however, the focus is on the whole sentence, not on the VP.

⁷⁷ As we will see in the next section, this sentence is felicitous if only the verb is in focus.

As was the case above, (c) can be felicitous if the question is slightly different, for instance *Why is Abdul so restless?* Then, however, the focus would not just be on the VP *drink water*, but on the bigger VP *wants to drink water*.

4.2.4.3 Ditransitive Verbs

Again, ditransitive verbs allow for more variation in the expression of VP-focus, just as it was the case with object focus. Interestingly, the apparent focus projection that we saw take place in the case of transitive verbs can be based on either object being put in focus in the case of ditransitive verbs, i.e., focus on the VP can be expressed by putting either object in the preposed focus position:

- (114) a. ne atea Abdul eka-ya?
 FM how/what A. (SM)-do-HAB
 What does Abdul do?
- b. ne mw-ana Abdul a-ðom-aγ-er-a i-βuku.
 FM 1-child A. SM-read-HAB-APPL-FV 9-book
- c. ne i-βuku Abdul a-ðom-aγ-er-a mw-ana
- (115) a. Abdul eka-ya atea?
 b. Abdul a-ðom-aγ-er-a mw-ana i-βuku

In (114), the answer in (b) seems to be slightly preferred over the answer in (c), although both seem to be acceptable. Comparing the preposed and in-situ versions of this sentence, my informant remarked that he would prefer (115b) as an answer to the question in (114a), which seems to indicate that projection is easier from the in-situ focus construction.⁷⁸

Another interesting point to note is that the type of right-moved focused objects that we saw in the section on object focus is not an option for VP-focus. Hence, (115c) is not a felicitous answer to the question in (115a):

- (115) c. # Abdul a-ðom-aγ-er-a i-βuku mw-ana

This type of structure is only possible in the case of narrow focus on the right moved element. Hence, in the case of ditransitive verbs, focus projection for postverbal focus is restricted to cases where the objects appear in their normal order.

4.2.5 Verb Focus

4.2.5.1 Intransitive Verbs

For intransitive verbs, it is quite hard to construct question contexts that invoke narrow focus on the verb. Alternatively, one can provide a context that involves contrastive focus. Formally, narrow focus on the verb is marked in the same way as focus on a VP containing an intransitive verb:

- (116) a. Abdul ne-a-ðek-ir-ε?
 A. FM-SM-laugh-ASP-FV
 Did Abdul laugh?
- b. Aja. Abdul ne-ko-rer-a a-rer-ir-ε.
 no. A. FM-SM(INF)-cry-FV SM-cry-ASP-FV
 No. Abdul cried.

⁷⁸ It is to some extent possible to answer a question in the in-situ form with an answer in the preposed form, also in the case of transitive verbs, but that is normally not the preferred form (see also section 5.1.4. in chapter 5).

This fits the picture that the lexical content of the verb is focused by having been moved into the focus position, while the in-situ verb form cannot be deleted because it carries important morphological information.

4.2.5.2 *Transitive Verbs*

In the case of transitive verbs, it is easier to provide wh-question contexts that assure narrow focus on the verb in the answer. Such questions can be formed using the scheme *What did A do with B?* Applying this, we get the same result as for intransitive verbs, namely an infinitive form of the verb in the focus position and an inflected form in the in-situ position:

- (117) a. Kamau ek-ir-ε na nyomba atea?
 K. (SM)-do-ASP-FV with 9.house what?
- b. ne atea Kamau ek-ir-ε na nyomba?
 FM what K. (SM)-do-ASP-FV with 9.house
both meaning: What did Abdul do with the house?
- c. Kamau ne-kw-εndia εnd-iri-ε nyomba
 K. FM-SM(INF)-sell (SM)-sell-ASP-FV 9.house
- d. Kamau ne-kw-εndia a-me-εnd-iri-ε
 K. FM-SM(INF)-sell SM-OM-sell-ASP-FV
 Abdul sold the house/ it.

Note that this is different from marking the entire VP for focus, which is done by putting the object into a focus position. This is illustrated by the difference between the following two examples:

- (118) a. ne atea Abdul ek-ir-ε?
 What did Abdul do?
- b. ne [mae]_F Abdul [a-nyu-ir-ε]_F
 Abdul drank WATER
- (119) a. ne atea Abdul ekire na mae?
 What did Abdul do with the water?
- b. ne [konyua]_F Abdul anyuire mae.
 He DRANK the water.

As in the case of intransitive verbs, this fits neatly into the picture that the lexical content of the verb is focused in the latter case by moving a copy of the verb into the preposed focus position.

4.2.6 *Sentence Focus and Verum Focus – The Case of Preverbal ne*

So far, we have looked at cases involving the occurrence of *ne* with preposed constituents. How should we analyze the case of preverbal *ne*? To approach this question, let's remind ourselves of the types of contexts in which we have found preverbal *ne*. One such context was that of Yes/No-questions. Preverbal *ne* appeared here in the question as well as in the answer. There also are Yes/No questions that do not contain preverbal *ne*, but if *ne* appears with another fronted element or does not appear at all, we get the familiar focus interpretation of the fronted element (121) or a postverbal element (122):

- (120) a. Abdul ne-a-ra-nyu-ir-ε ma-e?
 A. FM-SM-T-drink-ASP-FV 6-water
 Did Abdul drink water?

- b. ee. Abdul ne-a-ra-nyu-ir-ε mae.
Yes. Abdul did drink/ drank water.
- (121) a. ne [mae]_F Abdul aranyuire?
Did Abdul drink WATER?
- b. ee. ne [mae]_F Abdul aranyuire.
Yes. Abdul drank WATER.
- c. afa. ne [fai]_F Abdul aranyuire
No. Abdul drank TEA.
- (122) a. Abdul aranyuire [mae]_F?
Did Abdul drink WATER?
- d. ee. Abdul aranyuire [mae]_F
Yes. Abdul drank WATER.
- e. afa. Abdul aranyuire [fai]_F
No. Abdul drank TEA.

Another place where preverbal *ne* appears is in general statements, which may come with certainty or determination (see the descriptions by Barlow and Armstrong discussed in chapter 3 above). This is the reason that translations will often include a form of *do*-support. Another interesting case is provided by Armstrong (1940: 297), who presents the following dialogue:

- (123) A: waiya ha?
Where did you put it?
- B: ndaiya ikoombe
I put it in the granary.

[A then suggests B has made a mistake, whereupon he answers emphatically:]

- B: nendaiya ikoombe
I DID put it in the granary

She continues her description:

Here *ne* has strong stress; there may also be a lengthening of the **n** and an extended range of intonation to show contradiction. If this were an answer to ‘Did you put it in the granary?’, [...] there would be no extra stress, lengthening of **n**, or extended tone-range.

(Armstrong 1940: 297)

One interesting thing about this example by Armstrong is that intonational stress seems to play a meaningful role. But in the present discussion, the important point is that here the role of *ne* seems to be quite straightforwardly related to the truth of the sentence. Namely, it seems like we are dealing with a case of *verum focus* (cf. Gussenhoven (1983) and Höhle (1992)), i.e., what is in focus here is the truth of the proposition expressed by the sentence.

The situation isn’t really so different with Yes/No-questions. If they do not involve narrow focus (as in (121) and (122)), what else could be focused in them than the truth-value? When we ask a Yes/No-question, we want to find out whether the expressed proposition is true or false. Therefore, the affirmation of the truth of the proposition in question is what is important in the

answer to a Yes/No-question.⁷⁹ If the answer is positive, it involves *ne*, and what is focused is the truth of the sentence. The difference of intonation between a simple answer to a Yes/No-question and the last statement in (123) seems to be based on the fact that in the one case, the addressee does not know whether the proposition in question is true or not, while in the other, the truth of the proposition is controversial between speaker and hearer.

Finally, the regular use of preverbal *ne* in contexts where there is no question preceding the utterance also may be related to such highlighting of the truth of the sentence, especially if we consider the descriptions of this use as involving ‘certainty’ or ‘determination’. After all, Bergvall concluded that *ne* was best to be analyzed as ‘a particle connoting affirmation’ on the basis of the effect of preverbal *ne* as it has been described by Barlow, Armstrong, and Myers. This effect is in need of explanation if, as was argued above, *ne* is not directly responsible for the assertive or affirmative meaning. But, again, how could *ne* be an affirmative assertion marker if it also appears in questions?

Maybe the direction of a possible explanation becomes more clear if we consider another example. There is yet another interesting case that was already documented by Barlow as well as by Armstrong, which is the one of the subjunctive used with *ne*, which renders a hortative reading:

- (124) a. *ne-agwate*
 Let him take hold (Barlow 1951: 30)
- b. *ne-mategere*
 Let them run (Armstrong 1940: 170)

This should make it evident that *ne* is not necessarily marking an assertion. Also, it should be clear that it is not the verb that is in focus in any of the examples. One feasible option might be to assume that some sort of illocutionary operator is in focus in these cases of preverbal *ne*. Höhle (1992) suggests a similar analysis for verum focus phenomena in German.⁸⁰ Such an operator, which need not be bound to any particular position, could be moved into the focus position in the case of preverbal *ne*. Since this operator is phonologically null, the subject has to be moved into the topic position to avoid a surface form that is identical to that of a subject focus sentence.

Another possibility could be to follow Höhle’s (1992) alternative proposal to analyze cases of verum focus by saying that the weakest element, the one that is least likely to receive a pitch accent, is formally marked for focus in order to express verum focus. Adapting that idea to the Kikuyu data, one could assume that the focus position actually remains completely empty, which would be the case parallel to placing the accent on the weakest element in Höhle’s account.

Independent from what exact analysis we choose for these cases, the advantage would be that we can explain the ‘affirmative’ effect of preverbal *ne* without excluding the possibility of preverbal *ne* in questions and the subjunctive hortative construction. This is a clear advantage over Bergvall’s analysis of *ne* as a marker of assertion.

If we look at another case, however, it may be reasonable to assume that preverbal *ne* does not always express verum focus. Armstrong (1940: 171) gives a whole list of question and answer contexts, one of which involves a question asking why something had been done:

- (125) a. *o-reh-ir-ε* *mo-kaanda* *neke?*⁸¹
 SM-bring-ASP-FV 5-rope why
 Why did you bring a rope (today)?

⁷⁹ An additional factor in the answer is that all parts of the sentence are already given (in the sense of, e.g., Schwarzschild (1999)), which means that no particular word or constituent should be in focus.

⁸⁰ It should be noted, however, that Höhle (1992) ultimately concludes that this analysis is not correct, based on facts about verum focus in German embedded clauses. Nonetheless, his idea seems appealing in the light of the Kikuyu data discussed here.

⁸¹ It is unclear how *neke*, *why*, is related to *ne*. It probably has the same origin, but has become part of the word, since it can occur postverbally.

- b. tɔ́ndo ne-ɔ-tu-a mereɔ.
 because FM-SM(INF)-pick-FV potato-leafs⁸²
 Because I'm going to pick potato leaves.

In this case, it is not the truth of the proposition expressed in (b) that is emphasized. Rather, the sentence as a whole is an answer to the question: *it is for picking potato leaves* that the speaker brought the rope. This might make it reasonable to assume wide focus in (125b), rather than verum focus, i.e. focus on the whole sentence.⁸³ Other examples for this are given in (126) and (127):

- (126) a. o-r-ɛndi-a i-βuku neke?
 SM-T-sell-FV 9-book why
 Why did you sell the book?
- b. tɔ́ndo βaβa ne-a-r-ɛnd-a mbɛfa
 because my.father FM-SM-T-want-FV money
 Because my father wanted/needed money.
- (127) a. ne-kee ke-oru?
 FM-what CLM-bad
 What is bad? (*meaning*: What is wrong? What happened?)
- b. Abdul ne-ɛnd-iri-ɛ nyomba
 A. FM-sell-ASP-FV 9.house
 Abdul sold the house.

The last example is very similar to the classic examples of questions inducing sentence focus (e.g. *What happened?*), and it therefore seems reasonable to conclude that preverbal *ne* can also express sentence focus.

Furthermore, it seems like sentences with preverbal *ne* also appear in normal speech in contexts where there is neither a Yes/No-question to be answered nor a controversy about the truth of the statement. This also seems plausible if we assume that preverbal *ne* can be used to express wide focus on the entire sentence.

The reason for the form of preverbal *ne* being chosen to express sentence focus becomes clear if we consider the range of possible alternative expressions and their meaning. One alternative to preverbal *ne* is to have a sentence with no *ne* at all. In that case, as we have seen above, a postverbal element is focused. Another alternative is to have *ne* followed by a constituent other than the verb. Then that constituent (or part of it) is focused. So what should one do if one does not want to focus either a postverbal or a preposed element? The most reasonable strategy, and apparently the one chosen by Kikuyu grammar, seems to be the use of preverbal *ne*.

Given these considerations, the next question is how this analysis could be included in the focus phrase analysis of Kikuyu phrase structure proposed above. I can only sketch the direction of a possible answer at this point. One option might be to move the verb into the focus position. But that has already been proposed for the case of VP-focus above, where it was obligatory to leave a copy of the verb carrying all the inflectional information in its base position. The difference here might be that, in the present case, the inflectional features have to move with the verb to the focus position. However, it still would be unclear why the subject has to move into the topic position if the verb moves.

⁸² The translation is Armstrong's, the interlinear translation mine. The rope is needed to pick the potato leaves, therefore (b) is an adequate answer to (a).

⁸³ Armstrong's translation might suggest that not everything in the answer is in focus, since the referent of the pronoun *I* in (b) is already mentioned by *you* in (a). But as the interlinear translation shows, there is no pronominal reference in (b). A more adequate translation might be *for picking potato leaves*.

Another idea might be to move the entire IP into the focus position. That way everything in the IP could receive focus.⁸⁴ This might be the most straightforward approach. But it surely brings lots of technical questions with it. The subject, for example, has to receive focus through its trace then. If it is not moved into topic position, we don't get a preverbal *ne*-construction in the first place. So it has to be moved. But when it is moved, it is not in the IP anymore. This probably could be solved by undoing topic movement when the sentence is interpreted in LF.

Unfortunately, I cannot discuss these questions here at more length.⁸⁵ What is important is that it seems reasonable to analyze preverbal *ne* constructions as ambiguous. They can either express focus on the truth-value of an utterance or sentence focus.⁸⁶

The analysis of preverbal *ne* as expressing sentence focus allows for a further interesting prediction. One of the interesting points in the quote by Barlow above (chapter 3,) was that “when a sentence consists of an affirmative finite verb only (e.g. *nĩokire*, he came), *nĩ* is indispensable.” (Barlow 1951: 34) This has been confirmed by the data from my informant, and becomes plausible if we assume that every sentence has to contain a focus.⁸⁷ Since sentences without *ne* will cause a postverbal constituent to be in focus, and since this is impossible if there is no postverbal constituent, the only way for such simple intransitive sentences to have a focus is through preverbal *ne*. This phenomenon is hard to explain from the viewpoint of Bergvall's assertion marker analysis, since it is unclear why sentences consisting only of an intransitive verb should always receive a special marking for assertion. It follows, on the other hand, quite naturally from the focus phrase analysis.

4.2.7 Focus and Copula Constructions – A Possible Reanalysis

In the preceding sections, I have tried to provide a new analysis for two of the constructions where *ne* appears, namely constructions with preverbal *ne* and constructions with *ne* preceding a preposed element. The third type of context where *ne* appears, the one of copula constructions, still is in need of analysis. Basically, there are two possible ways of dealing with these cases. First, we could argue that *ne* plays a different role here than it does in the other cases. This would either mean to take *ne* as a genuine part of the copula-verb paradigm, which, as was argued above with Clements and Bergvall, seems unreasonable, or to simply say that *ne* does not have a focal effect in copula constructions, as Bergvall does (see the discussion of her argument above in section 3.3.3).

Secondly, we can try to fit the phenomena related to *ne* in copula constructions into the general picture of the analysis provided above. I will follow this latter approach, based on the fact that I did find effects of *ne* in copula constructions when put in question and answer contexts that are similar to the already familiar cases. However, it seems like the range for variation is more restricted in the case of copula constructions. I do not have any conclusive explanation for these different patterns, and maybe another analysis would be more successful. However, the alternative options that I can see do not seem any more promising, but rather less. So the following analysis should be understood as a first approach to a unified analysis of *ne*, but there certainly needs to be more work done to determine its adequacy. If all else fails, one could

⁸⁴ See Puskás (2000: 95-96) for a similar proposal for Hungarian.

⁸⁵ The illocutionary operator analysis is, of course, in need of much more discussion as well. It is unclear, for example, why preverbal *ne* can occur with the subjunctive to have a hortative meaning, but not in other speech acts, e.g. orders expressed by imperatives.

⁸⁶ Note that the analysis of preverbal *ne* marking sentence focus is different from the analysis proposed in Güldemann (to appear). Güldemann argues that preverbal *ne* marks predication focus, in case of which the predicate is part of the focus, but the complement or adjunct is not. He explicitly does not talk about sentence focus. Güldemann also takes instances of preposed *ne*-focus to be clefts (see also Güldemann 1996: 160-165).

⁸⁷ See, for example, Kiss (1998: 246).

always go back to the idea that *ne* in copula constructions is a historical leftover of some sort that does not behave in exactly the same way as the focus marker.

To determine the possibilities of focus marking, we once again apply the tool of question-answer sequences. To ask for the subject or the predicate NP of a copula construction, there are the following options:⁸⁸

- (128) a. n-[oo]_F mo-remi?
 FM-who 1-farmer
 Who is a farmer?
- b. ne [Kamau]_F mo-remi.
 FM K. 1-farmer
 KAMAU is a farmer.
- (129) a. Kamau n[oo]_F?⁸⁹
 b. Kamau ne [moremi]_F.
- (130) a. ? n[oo]_F Kamau?
 b. ? ne [moremi]_F Kamau.

(128) shows the subject question, for which there only is one option. This is no surprise, given that we already found subject questions to be an exception in respect to possible word order variations. (129) and (130) show the options for asking for the predicate NP. For some reason, the form in (130) is at least strongly dispreferred.

Note that these results are rather different from Bergvall's. As was mentioned in section 3.3.3., Bergvall tried to support her account by claiming that only (130b) exhibited focus, and that (129a) did not show any focal effect at all. As she did not give any contextual information for these sentences it is hard to see what she based this claim on.

If we take the data presented here to be correct and adequate, there is a problem for Bergvall's analysis. If (129) is possible to express focus on *moremi*, her cleft-analysis cannot account for this. If she analyzes the *ne* construction as a cleft, she cannot explain why the subject ends up in front of the cleft. The other alternative for her account is to claim that *ne* is preceding a null form of the verb. But that would be at odds with the fact that in-situ question words do not allow for preverbal *ne*. Finally, the oddness of (130) also is unclear from Bergvall's viewpoint, as this should be just another cleft-construction.

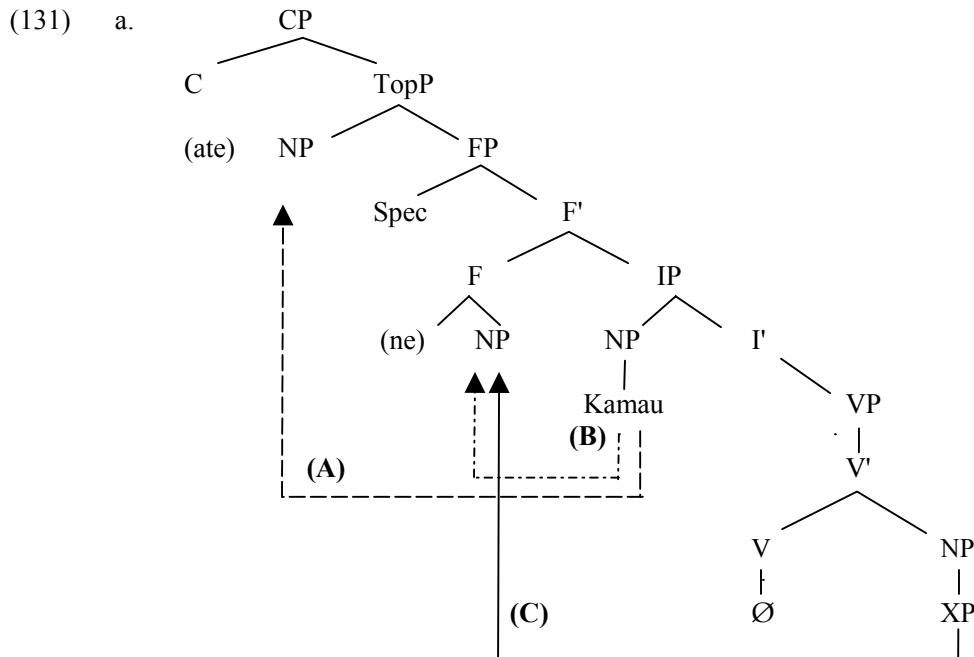
Let us have a look, then, at how the analysis pursued here would fare with this data. As a reminder, I repeat the scheme from above (adapted to copula constructions) to illustrate the possibilities of movement in the Kikuyu sentence:

⁸⁸ The choice of a proper name as the subject of the sentence should ensure that we can clearly distinguish subject and predicate NP.

⁸⁹ That *Kamau* is the subject of this construction is also supported by the following piece of data involving *mo-niini*, meaning *small*:

(i) moniini noo?

This can only be interpreted as somebody having the name *moniini*; the question cannot mean *Who is small?*



The case of subject focus is easily explained by assuming movement (B), which puts the subject in the focus position. A more complete description of (128b) that shows the position of the null form of the copula verb would then look as follows:

(132) a. ne [Kamau]_F Ø moremi.

Focus on the predicate NP in the form of (129) can be achieved by combining movement (A) and (C). That way, the subject *Kamau* ends up in the topic position and the predicate NP *moremi* in the focus position. The surface form, including the null form of the copula, then looks as follows:

(133) a. Kamau ne [moremi]_F Ø

In this analysis, we might even find an explanation for the oddness of (130). In this case, only movement (C) takes place. It might be odd because the proper noun *Kamau* in subject position has a strong tendency to go into the topic position.

Note that there is another possible analysis for copula sentences without focus on either the subject or the predicate NP. In these cases, only movement (A) takes place, leaving *ne* in preverbal position, only that the verb is phonologically null, so that *ne* appears adjacent to the predicate NP in surface structure. The correct description, however, would look as follows:

(134) a. Kamau ne Ø moremi

Unfortunately, there is a problem with this analysis when we apply it to copula constructions in the past tense. As the reader will remember, the verb stem *-re* is used as the copula verb in tenses other than the present and for constructions with first and second person subjects. For past tense examples, not all constructions with focus on the predicate NP that my analysis predicts are possible:

(135) a. n[oo]_F w-a-re mo-remi?
 FM-who SM-T-be 1-farmer
 Who was a farmer?

b. ne [Kamau]_F w-a-re moremi

- (136) a. */?? n[oo]_F Kamau aare?
 b. */??ne [moremi]_F Kamau aare.
- (137) a. */?? Kamau n[oo]_F aare?
 b. */??Kamau ne [moremi]_F aare.

It is not quite clear whether (136) and (137) are strictly ungrammatical or just very odd. In the case of (136) one could assume, just as above, that the proper noun subject has a strong tendency to go into the topic position. But that does not make sense if we look at (137), which is just as bad. In any case, the strongly preferred, if not the only possible, form to express the meaning of (136) and (137) is that of leaving the predicate NP in its noun phrase, with no *ne* present before the verb, thereby focusing the element following the verb.

- (138) a. Kamau aare [oo]_F?
 b. Kamau aare [moremi]_F.

I do not have an explanation for this pattern. Note, however, that the equivalent of (134) is possible in the past tense form (in the appropriate context, of course):

- (139) a. Kamau ne aare moremi

Also, the full pattern of variation exists for the verb stem *-re* when used as a locative copula expressing the location of the subject:

- (140) a. neko Kamau aare?
 FM-where K. SM-T-be(in)
 Where is Kamau?
- b. ne Nairobi Kamau aare.
 FM N. K. SM-T-be(in)
 Kamau is in NAIROBI.
- (141) a. Kamau neko aare?
 b. Kamau ne Nairobi aare.

Perhaps the reason for the different patterns of *ne* in copula constructions is that there really are two *ne*'s, that go back to the same origin, but which have developed differently to some extent.

In any case, I have to admit that the analysis that I proposed overgenerates in the case of copular *ne*, i.e. more constructions are predicted than actually are possible. However, one could argue that it would be reasonable to have certain restrictions in a particular type of occurrences. It seems easier to restrict an account that overgenerates than to have an account that cannot predict all the possible occurrences, as seems to be the case with Bergvall's in the light of the examples discussed in this section.

One should keep in mind at this point as well that historical considerations might be helpful. If *ne* originally goes back to a copular particle⁹⁰, then the analysis proposed here would involve quite a substantial reanalysis of the meaning of that particle. But if the argument against *ne* being part of the copula verb-paradigm is valid, then some reanalysis seems inevitable, if one wants to provide a unified account of *ne* in all its environments.

⁹⁰ This seems plausible, as *ne* is present in a number of Bantu languages of zone J and E (see Güldemann (1996) and (to appear)).

4.2.8 Focus on other Elements

In sections 4.2.2. and 4.2.3. we have looked at focus on arguments of the verb. But, as the examples in the section presenting the basic data in chapter 3 showed, it is also possible to focus non-argument elements by the same means. For example, one can focus locative and temporal adjuncts by the same means as arguments:

- (142) a. ne-ko Abdul end-er-iri-ε γε-tonga nyomba?
 FM-where A. (SM)-sell-APPL-ASP-FV 7-rich person 9.house
 Where did Abdul sell the house to the rich person?
- b. ne Nairobi Abdul endeririε yetonga nyomba
 It's in Nairobi that Abdul sold the house to the rich person
- c. Abdul endeririε γε-tonga nyomba ko?
- d. Abdul endeririε yetonga nyomba Nairobi
- (143) a. ne-re Abdul end-er-iri-ε γε-tonga nyomba?
 FM-when A. (SM)-sell-APPL-ASP-FV 7-rich person 9.house
 When did Abdul sell the house to the rich person?
- b. ne ira Abdul endeririε yetonga nyomba
 It was yesterday that Abdul sold the house to the rich person
- c. Abdul endeririε yetonga nyomba re?
- d. Abdul endeririε yetonga nyomba ira

In addition, the forms with the subject preceding the focus are possible as well. I assume that all these forms fit into the same syntactic pattern presented for argument focus above. For the in-situ forms, we face the same problem as with ditransitive verbs: How is it determined which postverbal element is focused? Again, it does not seem like there are any tonal differences, and it might be that these forms just are ambiguous.

As already mentioned, the only exceptions I have found to the otherwise fully general pattern are the two adverbial constructions mentioned in 3.2.2. One reason for these exceptions might be in connection with the interpretation of preposed *ne*-focus as being exhaustive (see the next chapter for a discussion of this).

Another interesting case is that of complex NPs with focus on a part of that NP. In the preposed version, the entire NP has to move into the focus position:

- (144) a. Abdul ađomayira mwana iβuku [rereku]_F?
 A. SM-read-HAB-APPL-FV 1-child 5-book 5-which
 Which book did Abdul read to the child?
- b. Abdul ađomayira mwana iβuku [rekuru]_F?
 A. SM-read-HAB-APPL-FV 1-child 5-book 5-old
 Abdul read the OLD book to the child:
- (145) a. Ne iβuku [rereku]_F Abdul ađomayira mwana?
 b. Ne iβuku [rekuru]_F Abdul ađomayira mwana
- (146) a. Abdul ne iβuku [rereku]_F ađomayira mwana?
 c. Abdul ne iβuku [rekuru]_F ađomayira mwana

Presumably, such cases involve some mechanism akin to pied piping. A detailed theoretical analysis of such cases would go beyond this study.⁹¹

Altogether we can state that almost all sentential constituents can be focused either in-situ or by movement into the focus position.

4.2.9 Contrastive Focus

The context that has determined what is in focus in the previous sections was that of question answer-sequences. Another common tool for inducing focus is that of correction sequences, where an assertion by one speaker is corrected in part by another. I did not study this type of context in as much detail as question answer-sequences, but did test a few basic constructions. The results from these few examples indicate that contrastive focus and question answer-focus are marked by the same means (as is the case, e.g., in English and German):

- (147) a. Sam ne-ɛnd-iri-ɛ ye-tonga nyomba?
S. FM-sell-ASP-FV 7-rich-person 9.house
Did Sam sell the house to the rich person?
- b. Aja. Ne [Abdul]_F w-ɛnd-iri-ɛ yetonga nyomba
No. FM A. SM-sell-ASP-FV 7-rich person 9.house
No. It was ABDUL that sold the house to the rich person.
- (148) a. Abdul neɛndiriɛ yetonga nyomba?
- b. Aja. Abdul (*ne-)ɛnd-iri-ɛ [mo-tumia]_F nyomba
No. A. (FM-)sell-ASP-FV 1-woman 9.house
No. Abdul sold the house to the WOMAN
- b.' Aja. ne [motumia]_F Abdul ɛndiriɛ nyomba.
No. It was the WOMAN that Abdul sold the house to.

As (148b) and (b') show, both strategies for focus marking (i.e., the in-situ and the preposed construction) of the human object are possible to express contrastive focus.

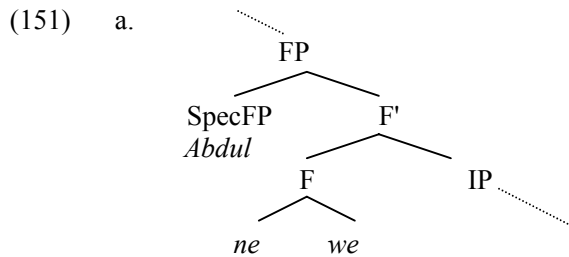
4.2.10 An Alternative Focus Construction

In section 4.1.2. I presented yet another possible focus construction. It was of the following form:

- (149) a. N[oo]_F Kamau ɔɔnirɛ?
Who did Kamau see?
- b. Abdul ne [we]_F Kamau ɔ-ɔn-ir-ɛ
A. FM 3Sg.PRON K. (SM)-T-see-ASP-FV
It is Abdul (that) Kamau saw
- (150) a. N[oo]_F w-ɛnd-iri-ɛ nyomba?
FM-who PP-sell-ASP-FV 9.house
Who sold the house?
- b. nie ne [nie]_F nd-ɛnd-iri-ɛ nyomba
1Sg.PRON FM 1Sg.PRON SM-sell-ASP-FV 9.house
It was me who sold the house. *or*:
I was the one who sold the house

⁹¹ Note that this is, again, similar to Hungarian. Kiss (1998: 260) provides a number of examples where the same complex NP is in the focus position, but where different placement of accent will determine what alternatives are introduced.

(150b) served as an argument against the cleft-analysis of *ne*-focus sentences, because if this sentence would be an independent clause of its own, it should contain the first person copula form instead of *ne*. But how could this construction fit into the analysis proposed here? One way to fit it into the syntactic account would be to assume a second movement of the focused constituent. But into which position does it move? It seems unlikely that it moves into topic position, because then the same element would be topic and focus. Furthermore, the subject in (149b) can also move to the front of the sentence. Maybe a possibility would be the specifier of the focus phrase. This would allow for the correct word order. The internal structure of the FP would then be as follows:



It is unclear what exactly the motivation for this second movement would be. Potentially it could be the expression of a strongly exhaustive interpretation that triggers this movement. The issue of exhaustivity will be picked up again briefly in the section on the semantics of focus in chapter 5.

4.3 Summary

In this chapter, I have argued that proposed *ne*-focus constructions in Kikuyu cannot be analyzed as cleft sentences. The main argument came from examples involving the combination of proposed focus and topicalization. Further supporting arguments came from proposed focus on locatives and from multiple *wh*-questions. Based on these arguments and the data on sentences that contained both a focus and a topicalized element, I proposed a syntactic analysis that crucially involves a focus phrase and a topic phrase. This analysis was inspired by Clements' proposal on the one hand and recent work on discourse configurability on the other hand. The extra positions in the phrase allow us to account for the variation in word order that we found in the data. Most of Clements' answers to central questions as presented in the overview at the end of chapter 3 can be held up for this modified analysis. The phrase structure for focus phrases is not recursive, which explains that only one *ne* can occur per clause. In relative clauses, the highest node is IP, which is why *ne*, which is generated in the domain of CP, cannot occur in them. Subordinate clauses introduced by *ate* do allow for *ne* to occur, because they have CP as their highest node. If the analysis of copula constructions can be refined to explain the restrictions on word order variation observed in the data, then the approach pursued here can provide a unified account of all three types of occurrences of *ne* (preverbal, with a preposed constituent, and in copula constructions).

The exact syntactic nature of the particle *ne* and the internal structure of the FP are not quite clear at this point, although it seems reasonable that *ne* is generated in the FP. Crucially, the topic and focus phrase are optional. This allows to account for the descriptive generalization that if no *ne* appears in a sentence, a postverbal element is focused. If *ne* had nothing to do with focus (as in Bergvall's analysis), this interaction would be unclear. When the optional FP is expanded, *ne* appears either preverbally or preceding a fronted constituent. In both cases, it marks focus. In the case of preverbal *ne*, it can either indicate focus on the truth-value or wide focus on the entire sentence. Syntactically, this is achieved by moving the subject to the topic position, while the focus position is filled with a truth-value (or illocutionary) operator or the content of the IP, depending what is focused.

In the last sections of the chapter, I provided new data that illustrated how different parts of the sentence can be focused. In particular, I showed that VP-focus involves focus projection in the case of transitive verbs. Formally, the object is marked for focus, but this focus can project to

the entire VP. An interesting case was that of focus on the verb (as well as on intransitive VP's), where the infinitive form of the verb appeared in the fronted position, while a copy of the verb remained in-situ, apparently to ensure that inflectional information gets expressed.

As the method to control for focus that has been used here was that of question answer congruence, a further conclusion that can be drawn from the data discussed here is that question words only appear in positions where they can receive focus. For example, question words cannot appear in-situ when the sentence contains preverbal *ne* (because preverbal *ne* excludes the possibility of narrow focus on a postverbal element). This also explains why subject question words cannot appear in-situ, as they could not receive focus there.

5 Loose Ends

In this chapter, some issues are addressed that cannot be treated in depth within this study, but which nonetheless should at least be mentioned. First of all, there are some open questions and further issues that the analysis proposed in chapter 4 will have to deal with at some point. These include the morphological effects of preposed focus constructions, the impossibility of *ne* in certain tenses, negation, and alternative questions. For some of these, data is provided, and considerations on the relation of the relevant phenomena with the analysis proposed in chapter 4 are presented. Secondly, some issues concerning the meaning of the preposed and in-situ focus constructions discussed in this study are raised and discussed. Finally, potential issues related to tone are considered, although no clear results have been found in this regard.

5.1 Further Issues for the New Analysis

5.1.1 Morphological Effects of *ne*-Focus

As we have seen in the discussions of Clements' proposal for the treatment of *ne* in chapter 3, there are certain morphological effects (mainly) on the verb that can be found in preposed *ne*-focus constructions (containing *wh* and non-*wh* elements) as well as in relative clauses. Namely, the subject prefix for class 1, third person, changes form /a/ to /o/, and negation changes form /ti/ to /ta/. Furthermore, the tonal form of the verb also changes to what is often referred to as relative form. These phenomena are, of course, easily accounted for within the cleft-analysis of preposed *ne* constructions, because the cleft-constructions actually contain a relative clause, and therefore it is only natural that we find the relative form. This is one of the reasons why the preposed *ne*-focus construction has been analyzed as a cleft (cf. Güldemann 1996: 161).

However, as we have seen in the context of Clements' proposal, it is also possible to account for these morphological changes by assuming that they are triggered by open clauses, that is, clauses from which an element has been extracted. Something along the lines of Clements' open clause analysis is needed for my analysis in chapter 4. Therefore, further research has to show to what extent this analysis can be integrated into contemporary syntactic frameworks, and whether it is cross-linguistically reasonable to assume such an analysis.

In general, it is no surprise that there is a high degree of similarity between focus constructions and relative clause constructions, as this is quite common cross-linguistically (cf. Schachter 1973). Also, it might be reasonable from a historical perspective to assume that the preposed *ne*-focus constructions have their origin in cleft-constructions, since *ne* is present in (what looks like) cleft-constructions in a number of Bantu languages.⁹² If this is so, it would be

⁹² See Güldemann (to appear). In several languages, including Masaba (J31 in Guthrie's classification), Vunjo (E62b), and generally in zone E50 (which includes Kikuyu), *ne* also occurs as a preverbal particle. It is not quite clear, however, whether the function it serves in that position is always exactly the same.

expected that relative clause features are still present in such constructions, especially if the grammaticalization has taken place recently.⁹³

But given the data that I have presented, it seems like we are not dealing with clefts anymore in Kikuyu, and if these constructions ever were clefts, they seem to have been grammaticalized into the focus phrase. In this connection, it is interesting that Kiss (1998) argues that there is a focus phrase in English cleft sentences as well. Possibly, an argument could be made that this also was the case in Kikuyu, and that, over time, this focus phrase has become integrated into the extended phrase structure at the left periphery. This then made it possible to have topicalized elements appear in front of the *ne*. In particular, topicalization of the subject made it possible for *ne* to also appear preverbally. This would be a possible path that Kikuyu could have taken from *ne*-clefts to the general focus marker *ne*. However, these considerations are rather speculative, and in-depth historical and cross-linguistic research is necessary to pursue these issues further.

5.1.2 The Absence of *ne* in Certain Tenses

An interesting fact about the distribution of *ne* was, as we have seen in the discussion of Barlow's work on Kikuyu above, that there are a number of tenses in which *ne* cannot occur. For some of these, like the negative and relative tenses (or rather forms of tenses), an explanation may be fairly straightforward (see next section for negation). For others, like the consecutive tenses, the "prefix-*a*" tense used in the protasis of conditional clauses and others, it is less clear why *ne* cannot appear in them. All of these seem to occur in clauses that are not fully independent. Further research will have to show whether there is syntactic evidence that these do not contain a CP (as in the case of relative clauses), or whether other motivations for the impossibility of *ne* can be found. So far, no attempt of an explanation has been forward in this regard in the literature, except for Bergvall's idea mentioned above that consecutive tenses emphasize the connection to the previous sentence, and therefore cannot focus any particular element.

5.1.3 Negation

As Bergvall (1987: 86) shows, the marker of negation, *ti*, and *ne* are in complementary distribution. In independent clauses, *ti* occurs in the fronted constituent construction as well as in the verbal complex. In the latter, it appears in a different position than *ne*, namely after the object marker, as can be seen in the following examples (from Bergvall 1987: 86):

- (152) a. Kamau ti mo-remi
 K. NEG 1-farmer
 Kamau is not a farmer.
- b. Ti mw-ana w-ɔɔn-ir-ε mobiira
 NEG 1-child SM-see-ASP-FV ball
 It wasn't the child who saw the ball.
- c. To-ti-ɔɔn-a mwana (*netotiɔɔna)
 SM-NEG-see-FV 1-child.
 We did not see the child.

In subordinate clauses, as well as following *ne*-focus, verbal negation changes from /ti/ to /ta/ (see also example (42) above).

Given their complimentary distribution, the question arises whether *ne* and *ti* are also generated in the same position. It does seem like *ti* has a similar effect in question answer sequences. In particular, a postverbal element cannot be in focus when *ti* appears on the verb.

⁹³ Heine and Reh (1984: 168) describe the grammaticalization of the copula in Rendille, which has become a focus marker. Sentences containing it also still have certain relative clause features.

However, more data is needed to systematically relate these phenomena to one another. The interaction between negation and focus therefore is an interesting field for future research.

5.1.4 Alternative Questions

One type of questions that we have not yet talked about is that of alternative questions. Although these may, at first sight, appear to be a type of Yes/No-question, they are more like a constituent question when we look at the possible answers (Krifka 2001):

- (153) a. Do you want TEA or COFFEE?
b. I want TEA.

In the question in (a), both of the nouns connected by the disjunction are stressed. This distinguishes alternative questions from Yes/No-questions containing a disjoined object NP, which can be answered by *yes* or *no*:

- (154) a. Do you want milk or sugar?

We find the same pattern in Kikuyu. To ask an alternative question, the two disjoined object NP's have to be marked for focus, i.e. they either have to appear in-situ (and without preverbal *ne*) or in a preposed position with *ne*:

- (155) a. ɔ-kw-end-a jaai kana kahowa?
SM-T-want-FV tea or coffee
b. ne jaai kana ne kahowa o-kw-end-a?
FM tea or FM coffee SM-T-want-FV
both meaning: Do you want TEA or COFFEE?

The Yes/No-question in (154), on the other hand, is expressed in Kikuyu by the question in (156):

- (156) c. ne-ɔ-kw-end-a fukari kana iria?
FM-SM-T-want-FV sugar or milk.
Do you want sugar or milk?

Note that in this case, *ne* has to appear in the preverbal position, as is normally the case in Yes/No-questions.

One interesting point in (155b) is that *ne* occurs twice. So far, it has been one of the most stable generalizations in the data that *ne* can only occur one time per clause. What could the syntactic structure of (155b) look like? One approach that could preserve the idea that *ne* is only generated one time per clause (because FP can at most be generated once per clause) might be to analyze the sentence as containing an elliptical structure, so that each *ne* appears within its own clause.

5.2 Semantic Issues

Comparing the meaning of the in-situ and the preposed focusing strategy, we have noted above that it is hard to detect a difference. Both seem to serve the general function of focus of introducing new information or alternatives, depending on how one wants to analyze focus in general (see chapter 2). However, there are a few hints that there might be a difference between in-situ and preposed focus. First of all, in question and answer sequences it generally seems to be required that the question and the answer follow the same pattern:

- (157) a. ne kee Abdul ε(n)d-iri-ε yetonga?
FM what A. (SM)-sell-ASP-FV 7-rich man
What did Abdul sell the rich man?
b. √ ne nyomba
FM 9.house

- c. √ ne nyomba Abdul ε(n)d-iri-ε yetonga
FM 9.house A. (SM)-sell-ASP-FV 7-rich man
- d. √ Abdul ne nyomba ε(n)dirie yetonga
- e. * nyomba
- f. * Abdul ε(n)dirie yetonga nyomba

- (158)
- a. Abdul ε(n)dirie yetonga kee?
Abdul (3Sg)-sell-TMP 7-rich man what
 - b. * ne nyomba
 - c. ? ne nyomba Abdul ε(n)dirie yetonga
 - d. ? Abdul ne nyomba ε(n)dirie yetonga
 - e. √ nyomba
 - f. √ Abdul ε(n)dirie yetonga nyomba

The preposed question in (157a) has to be answered in the preposed *ne*-form, in the short term answer as well as in a full sentence answer. In case of the in-situ question, the requirement seems to be slightly less strict, as the full sentence answer with preposed focus seem to be acceptable to some extent. Note, however, that the term answer is not possible with *ne*. Unless one assumes that this is simply some sort of surface parallelism requirement, the incompatibility of questions and answers of the different forms seems to indicate that there is a difference in meaning between them.

A further hint stems from Bergvall (1987: 139), who gives the following example of a preposed infinitive and notes that her informant “finds that the *ne*-initial form implies exclusivity: ‘we swept, but did nothing else’”:

- (159)
- a. ne ko-haat-a to-haat-εt-ε
FM INF-sweep-FV SM-sweep-ASP-FV
We did the sweeping (Bergvall’s translation)

It is not clear whether the same holds for other elements in the preposed focus position as well. But it would fit nicely into the cross-linguistic picture if the preposed position indeed involved exhaustivity.

Remember that in the discussion on Hungarian in chapter 2 the general claim was presented that preposing of elements into the focus position in Hungarian marks identificational focus, which involves exhaustivity. To show that this is so, Hungarian linguists have proposed a couple of tests for exhaustivity. One of these tests involves judgments about logical consequence. In Hungarian, sentence (b) is not a logical consequence of sentence (a) (from Kiss 2002: 78)⁹⁴:

- (160)
- a. János PETERT ES ZOLTANT mutatta be Marinak.
John Peter-ACC and Zoltan-ACC introduced VM Mary-to
As for John, it was Peter and Zoltan that he introduced to Mary.
 - b. János PÉTERT mutatta be Marinak.
John Peter-ACC introduced VM Mary-to
As for John, it was Peter that he introduced to Mary.

The argument is as follows: Because preposed focus identifies an exhaustive subset of referents, sentence (b) is not true when sentence (a) is true. Sentence (b) accordingly claims that only Peter was introduced to Mary, which would not be true if sentence (b) was true. The same test does not work for Hungarian in-situ focus, which, according to Kiss, only expresses informational focus.

⁹⁴ Kiss attributes the test itself to Szabolesi (1981).

A further test⁹⁵ involves the following dialogue:

- (161) a. János PÉTERT mutatta be Marinak.
 John Peter-ACC introduced VM Mary-to
 As for John, it was Peter that he introduced to Mary.
- b. Nem, Zoltánt is bemutatta neki.
 no Zoltan-ACC also introduced to.her
 No, he also introduced Zoltan to her.

The response in (b) only makes sense if the focus on *Pétert* in (a) implies that nobody else was introduced to Mary. Otherwise, it would not make sense to begin the utterance in (b) by *no*. In case of the in-situ version of (a), it would indeed not make sense to reply by uttering (b). Therefore, preposed focus can be assumed to express exhaustivity, whereas in-situ focus does not.

A first attempt to apply these tests to Kikuyu seemed to indicate that the contrast between in-situ and preposed foci was not as clear in Kikuyu. According to my informant, there is no clear difference in the relation of (162b) to (162a) compared to the relation between (163b) to (163a), i.e., in both cases it seems like (b) is true whenever (a) is true.

- (162) a. Kamau ne nyomba na funda endirië
 b. Kamau ne funda endirië.
- (163) a. Kamau endirië nyomba na funda
 b. Kamau endirië funda.

However, it should be noted that the judgments involved here are quite subtle, and that these tests have been designed and used by linguists with extensive training in such judgments. Therefore, one should be careful to draw the conclusion too quickly that there is no difference at all in meaning between the two types of focus constructions in Kikuyu. The same is also valid for the second test, which did not deliver any clear results, either, although my informant could not make much sense of the reply analogous to (161b) for either type of focus construction.

These first tests then seem to indicate that exhaustivity is not necessarily involved in the preposed *ne*-constructions. Bergvall's example, on the other hand, seems to show that exhaustivity does play a role, at least to some extent. Further research needs to be carried out to clarify the issue. It should be noted in this context that there is an explicit way of expressing exhaustivity. This can be done by replacing *ne* by *no*, which roughly means *only*:⁹⁶

- (164) a. Kamau nɔ funda endirië.
 K. only 9.donkey (SM)-sell-ASP-FV
 Kamau only sold the DONkey.

It is unclear how *no* is related to *ne*. Benson's dictionary characterizes it as the "emphatic form of *nĩ*" (Benson 1962: 283).

Another construction that apparently involves exhaustivity, according to my informant, is that of the alternative focus construction discussed in section 4.2.10., repeated here:

- (165) a. Abdul ne [we]_F Kamau ɔ-ɔn-ir-ε
 A. FM 3Sg.PRON K. (SM)-T-see-ASP-FV
 It is Abdul (that) Kamau saw

This construction seems to come with a fairly strong exhaustive reading, so that it is understood as meaning that it was only Abdul that Kamau saw.

⁹⁵ see Kiss (2002: 79), who attributes it to Donka Farkas.

⁹⁶ It should be noted that there is a difference between expressing exhaustivity by *only* and by a cleft construction. In the first case, exhaustivity is asserted, while it is presupposed in the case of clefts.

One final note concerning the potential exhaustivity involved in the preposed focus constructions is related to the case of prepositional phrases mentioned in chapter 3. These cannot be preposed with *ne*. If preposed *ne*-constructions come with an exhaustive reading, this might explain the exception. In order to interpret something as an exhaustive subset, there needs to be a reasonable restriction on the alternatives. In the case of manner adverbials, this might be impossible, as activities can be described as being carried out in many ways. For example, while the example in (31) expressed that Abdul sold the house quickly, this action can surely be described by other modifiers as well (carefully etc.). It is hard to see how only one manner adverb could fit an action. Therefore, if preposed foci would imply exhaustivity, this could explain why one cannot use this construction with manner adverbials.

5.3 Tonal Issues

Up to this point, the issue of tone has been almost completely ignored. There are several reasons for this: The tonal system of Kikuyu is very intricate, and it requires quite a bit of training to even hear the tones in an utterance correctly. Furthermore, there seem to be dialectal variations in the tonal system, which make the application of the existent literature to newly collected data potentially problematic.⁹⁷ Nonetheless, interaction between tone and the focus background structure have frequently been observed in the literature on Bantu, and it seems promising to at least consider this dimension as well. Hyman (1999), who gives a survey of the interaction of tone and focus in Bantu, thus concludes that “whether one is a syntactician or semanticist wishing to study focus *or* whether one is a phonologist wishing to study tone, one must consider all aspects of the grammatical system of a Bantu language” (Hyman 1999: 174). Although it proved to be extremely difficult to find such interaction, I want to present some considerations on this issue in the present section. Certainly, the amount of research efforts put into this has been insufficient, and the points of interest that I point out here are at best a helpful start for further research.

In the literature on Kikuyu, very little attention has been paid so far to the relation between tonal surface forms and the focus background partition of sentences.⁹⁸ There are, however, numerous studies on this issue for a number of Bantu languages (see Hyman (1999) for an overview). Most notably, Kanerva (1990) and (1990a) showed that focus affects the formation of phonological phrases in Chichewa, which in turn determines where tonal processes such as lengthening and retraction take place. In Kikuyu, attention has mainly been paid to the tonal effects that come along with the presence or absence of *ne* on the verb. And at this point, it seems like this might be all there is in terms of interaction between tone and focus. One crucial difference to Chichewa seems to be that there are no phonological processes that take place at the end of some form of intermediate phonological phrases. These processes were crucial for Kanerva’s study, as they allowed him to argue that the phrasing in sentences with identical word order changed due to different placement of focus.

In Kikuyu, on the other hand, focus is determined in large parts by word order. Therefore, it seems like the only interaction between focus and tone is related to the different verbal forms we find in different focus constructions. It seems, for example, that certain verbal forms protect a following argument or adjunct from a general flattening rule that turns sentence final high tones into low tones (Clements 1984a: 285). Hence we find the following variation on the object NP:

- (166) a. nɔ̀nɔ̀nɔ̀rɛ́ [Nɔ̀nɔ̀nɔ̀rɛ́]_F.
 I saw Nganga
- b. ndinɔ̀nɔ̀na Nganga.
 I didn’t see Nganga.

⁹⁷ This is pointed out by Bergvall (1987) as one of her reasons to not study tone in detail.

⁹⁸ To some extent, Clements (1984) and (1984a) are the exception to this, where tonal forms of the verb in connection with the appearance of *ne* are discussed. Some aspects of this discussion will be presented shortly.

- c. ne [Kamau]_F wɔɔnɪre Nganga.⁹⁹
It was Kamu that saw Nganga.

As we have seen in the previous chapters, the name *Nganga* is in focus in (a), but not in (b) (Remember that the verbal negation has the same effect as *ne* on the focus structure) and (c). This might lead us to think that the preserved high tone on *Nganga* is due to focus. However, we also find this high tone in the form with preverbal *ne*. There, *Nganga* also can be part of the focus, if the entire sentence is in focus. But this should be the same as in (b), where there is no high tone on *Nganga*. Even if we could formulate a generalization that we find a high tone on an object noun when it is in focus, it only would work in cases with no more than one postverbal element. When there is more than one element, there is no relation at all between high tones and focus. The first postverbal element will bear a final high tone on the final syllable if its lexical tone does, and the sentence final element will always undergo flattening, even if it is in focus. This means that in the double object examples that we have seen in the section on object focus above, where either one of the objects could be in focus when there was no preverbal *ne*, focus does not make a difference in the tonal form of the utterance. Therefore it seems like tone is affected by the form of the verb, and the form of the verb does interact with the focus structure, but there is no direct interaction of tone and focus. Also, it did not seem like there was any difference at all between sentences that have the same word order but different foci. This was tested by recording multiple versions of such sentences with identical word order, but as answers to different questions. For example, a transitive sentence was recorded as an answer with focus on the VP and narrow focus on the object, and a double object construction was recorded in two contexts with the different objects in focus. However, neither my informant nor I myself could tell any difference in the recordings.

Yet another phenomenon that could possibly be related to focus is that of the stable suffix, as described by Clements (1984a). The stable suffix appears to be a tonal appendix to verb forms with preverbal *ne* (Clements 1984a: 298). In these forms, the final vowel of the verb always seems to bear a rising tone. It is unclear, however, why this is so and whether this could be directly related to focus. Also, Clements' data does not make it clear whether the *ne*-forms of the verb that he discusses are instances of sentence focus or of truth-value focus. Therefore, we cannot know at this point whether the rising tone suffix appears in both of these forms or just in one of them. In connection with this, we also should remember the dialogue from Armstrong presented above in (123), where there was an explicit controversy about whether the utterance in question was true or not. In the final, strongly emphatic assertion with *ne*, Bergvall noted that "here *ne* has strong stress; there may also be a lengthening of the **n** and an extended range of intonation to show contradiction. If this were an answer to 'Did you put it in the granary?', [...] there would be no extra stress, lengthening of **n**, or extended tone-range." (Armstrong 1940: 297). This is one of the few indications found in the literature that intonation could be relevant for focus, as here two types of focus, namely truth-value focus and sentence focus, might be distinguished by different possible intonation patterns.

Altogether, extensive systematic research that takes into consideration the tonal classes of nouns and verbs is needed to find out with certainty whether there are any direct correlations between tone and focus.

⁹⁹ The tones on the verb are unclear in this example, and therefore have not been marked. It is clear, however, that there is no final high tone on *Nganga*.

6 Conclusion

The aim of this study was to provide a broadened empirical basis for the range of possible focus constructions in Kikuyu and to propose a theoretical syntactic analysis of focus constructions involving the particle *ne*. After taking a close look at the existing proposals for the analysis of *ne* in the literature, we were facing the question whether preposed focus constructions with *ne* were to be analyzed as cleft sentences, as proposed by Bergvall (1987), or as a syntactic focus phrase in the c-domain, as proposed by Clements (1984).

Based on new data, in which topicalization and a preposed focus were combined, I tried to argue that the fronted focus constructions cannot be analyzed as clefts. I then tried to develop a unified account of *ne* for the preposed constructions with *ne* and for preverbal *ne*. This analysis was inspired by work done on Hungarian, which is generally assumed to have a fixed syntactic position for focus. The Kikuyu data can also be accounted for by assuming such a position. Furthermore, just as in Hungarian, there also seems to be a need for some sort of topic position preceding the focus position. If this analysis is correct, then Kikuyu is a discourse configurational language.¹⁰⁰ This led to an extended phrase structure in the left periphery of the Kikuyu sentence, including a focus and a topic phrase. The account that I presented was also looked at in the light of new data, which included focus on the VP, the entire sentence, and the truth-value. Although more detailed analyses are necessary for a number of cases, it seems like the analysis could capture the phenomena observed in the data.

One question that was not fully answered was whether the copular use of *ne* can also be integrated into the unified account. This is certainly possible in terms of mere word order, but there seem to be some distributional restrictions that do not apply for the other occurrences of *ne*. Furthermore, the phenomenon of postverbal focus still lacks a detailed analysis. Nonetheless, it seems clear that there is a straightforward interaction between the use of the focus marker *ne* and postverbal focus, since the latter can only occur when the former is absent.

The dimension of this thesis has mostly been limited to the synchronic study of Kikuyu. The analysis pursued here could benefit from additional cross-linguistic (in particular cross-Bantu) work, as well as from diachronic insights. It seems quite plausible that the preposed focus construction with *ne* has developed from syntactic clefts, with *ne* serving, in one way or another, a copular function. This type of development, from a copula to a focus marker, is quite common and has been illustrated, for example, for Rendille (Heine & Reh 1984: 165-168). Assuming such a development would especially account for the relative clause properties found on the verb in preposed *ne*-focus constructions.¹⁰¹ If cross-linguistic and diachronic research would provide further evidence that the syntactic focus phrase has developed out of clefts, this would be interesting on a more general theoretical level, if one considers the proposal by Kiss (1998) discussed above, which analyzes English cleft constructions as involving a focus phrase as well.

Another question for further research is that of exhaustivity in preposed *ne*-focus constructions. The available tests in the literature on Hungarian are not very well suited for field work with an informant. Therefore, more practical tools, for example ones that use broader textual contexts, have to be developed in order to get reliable judgments. The question of exhaustivity, and of a possible difference in meaning between in-situ and preposed focus constructions also is of interest for a potential diachronic analysis, since it is unclear why Kikuyu would have developed two different types of focus constructions, in-situ and preposed, if these serve exactly the same purpose and express the same meaning.

¹⁰⁰ Certainly with respect to focus, and possibly also with respect to topic, if discourse evidence can be found that what I have represented as a topic phrase in the syntactic analyses really displays topic properties.

¹⁰¹ This also is the case in Rendille (Heine & Reh 1984: 168).

Finally, possible interactions of focus and tone are yet to found. Although it is hard to exclude the possibility completely, the evidence at the moment seems to indicate that there is no or not much interaction between them. However, further research is necessary to confirm this.

Acknowledgements

Since the work for this thesis originated in a class on linguistic fieldwork and has crucially depended on the native competence of a Kikuyu speaker, I first of all want to thank my informant Sam Kinuthia for his patience in enduring hours and hours of questioning about focus and question answer sequences in Kikuyu.

I am indebted to the teacher of this class, Manfred Krifka, who has taught me most of what I know about linguistics. Beyond teaching me a lot on how to do linguistics, he has inspired me to pursue the study of language further, and has given me more encouragement and support than I could have hoped for. In connection with this thesis, I am especially thankful for his advice and many helpful comments, as well as for all the time and effort he put into reading drafts and discussing them with me. Also, without his generous help in making the meetings with the informant possible, first at the Humboldt University and later at the ZAS, the research for this thesis could not have been carried out.

It was a very pleasant part of this endeavor that most of the data were collected with a group of people from the Humboldt University and the ZAS. I want to thank the participants of this group, namely Laura Downing, Sabine Zerbian, Markus Fischer, and Peggy Jacobs, for many good times and for helpful discussions and comments. I want to thank Laura and Sabine especially for their continuous interest in my work and for many exciting and fruitful discussions. Laura also read a draft of this thesis and gave very helpful feedback.

A number of people have been so kind to discuss parts of my work at different stages, and I very much appreciate their interest and comments: Katharina Hartmann and Renate Musan read my first short paper on focus in Kikuyu and discussed some of the issues with me. Yukiko Morimoto and Lisa Cheng took time to give me helpful comments on a draft of chapter 3 and 4.

I had the fortunate opportunity to present parts of this thesis at the SOAS in London at the workshop *Bantu Grammar: Description and Theory*, and I would like to thank the participants for discussion and comments.

I would like to thank my parents, Manfred and Angelika Schwarz, for their support throughout my studies, and also for always supporting me in whatever I wanted to do. And above all, thanks to Traci for unlimited support, for her patience, and for her continuous efforts to pull me away from my desk every once in a while.

References

- Abraham, W. (ed.) (1990): *Discourse Particles*. Amsterdam: John Benjamins.
- Abraham, W. & Meij, S. de (eds.) (1986): *Topic, Focus and Configurationality*. Amsterdam: John Benjamins.
- Aissen, Judith L. (1992): Topic and Focus in Mayan. *Language*, 68, 43-79.
- Akmajian, Adrian (1970): On deriving cleft sentences from pseudo-cleft sentences. *Linguistic Inquiry*, 1, 149-168.
- Armstrong, Liliias Eveline (1940): *The Phonetic and Tonal Structure of Kikuyu*. London: Oxford University Press.
- Barlow, Ruffell A. (1927): The use of the copula with the Kikuyu verb. In: *Festschrift Meinhof*, (pp. 223-227). Glückstadt/Hamburg: J.J. Augustin.
- Barlow, A. Ruffell (1951): *Studies in Kikuyu Grammar and Idiom*. Edinburgh: Blackwood & Sons.
- Benson, T. G. (ed.) (1964): *Kikuyu-English Dictionary*. London: Oxford University Press.

- Bergvall, Victoria L. (1983): Wh-Questions and Island Constraints in Kikuyu: A reanalysis. In: Kaye, J. & Koopman, H. & Sportiche, D. et.al. (eds.): *Current Approaches to African Linguistics, Vol. 2.* (pp. 245-260). Dordrecht: Foris Publications.
- Bergvall, Victoria L. (1986): A typology of empty categories for Kikuyu and Swahili. In: Dimmendaal, G. (ed.): *Current Approaches to African Linguistics, Vol. 3.* (pp. 55-70). Dordrecht: Foris.
- Bergvall, Victoria Lee (1987): Focus in Kikuyu and universal grammar. Unpublished Ph.D. Thesis, Harvard University.
- Bergvall, Victoria L. (1987a): The Position and Properties of In Situ and Right-Moved Questions in Kikuyu. In: Odden, David (ed.): *Current Approaches to African Linguistics, Vol. 4.* (pp. 37-55). Dordrecht: Foris Publications.
- Bresnan, Joan W. (1968): Remarks on Adsententials. MIT ms.
- Brody, Michael (1990): Some Remarks on the Focus Field in Hungarian. *UCL Working Papers*, 2, 201-225.
- Büring, Daniel (1997): *The 59th Street Bridge accent: On the meaning of topic and focus.* New York: Routledge.
- Bynoe-Andriolo, Esla Y. & Yillah, M. Sorie (1975): Predicate-clefting in Afro-European Creoles. *Ohio State Working Papers in Linguistics*, 20, 234-239.
- Chomsky, N. (1970): Deep Structure, Surface Structure and Semantic Interpretation In: Jakobson, R. & Kawamoto, S. (eds.): *Studies in General and Oriental Linguistics.* (pp. 52-91). Tokyo: TEC.
- Chomsky, N. (1976): Conditions on Rules of Grammar. *Linguistic Analysis*, 2, 303-351.
- Chomsky, N. (1981): *Lectures on Government and Binding.* Dordrecht: Foris.
- Chomsky, N. (1986): *Barriers.* Cambridge, MA: MIT Press.
- Clements, G. N. (1980): A syntactic account of Kikuyu 'ni'. Paper presented at the Groningen Round Table on Linguistics, 4.
- Clements, G. N. (1984): Binding Domains in Kikuyu. *Studies in the Linguistic Sciences*, 14, 37-56.
- Clements, G. N. (1984a): Principles of Tone Assignment in Kikuyu. In: Clements, G. N. & Goldsmith, John (eds.): *Autosegmental Studies in Bantu.* (pp. 281-339). Dordrecht: Foris.
- Clements, George N. & Ford, K. C. (1979): Kikuyu Tone Shift and Its Synchronic Consequences. *Linguistic Inquiry*, 10, 179-210.
- Clements, G. N. & Ford, Kevin C. (1981): On the Phonological Status of Downstep in Kikuyu. In: Goyvaerts, Didier L. (ed.): *Phonology in the 1980's.* (pp. 309-357). Ghent: Story-Scientia.
- Clements, G. N. & Goldsmith, John (eds.) (1984): *Autosegmental Studies in Bantu.* Dordrecht: Foris.
- Collins, Peter (1991): *Cleft and pseudo-cleft constructions in English.* London: Routledge.
- Delin, Judy & Oberlander, Jon (1995): Syntactic constraints on discourse structure: The case of it-clefts. *Linguistics*, 33, 465-500.
- Dimmendaal, G. (ed.) (1986): *Current Approaches to African Linguistics, Vol. 3.* Dordrecht: Foris.
- Emonds, Joseph (1976): *A transformational approach to English syntax.* New York: Academic Press.
- Fery, Caroline & Sternefeld, Wolfgang (eds.) (2001): *Audiatur Vox Sapientia. A Festschrift for Arnim von Stechow.* Berlin: Akademie Verlag (= studia grammatica 52).
- Ford, K. C. (1975): The Tones of Nouns in Kikuyu. *Studies in African Linguistics*, 6, 49-64.
- Goyvaerts, Didier L. (ed.) (1981): *Phonology in the 1980's.* Ghent: Story-Scientia.
- Groenendijk, Jeroen & Janssen, T. & Stokhof, M. (eds.) (1981): *Formal Methods in the Study of Language.* Amsterdam.
- Güldemann, Tom (to appear): Present progressive vis-à-vis predication focus in Bantu: A verbal category between semantics and pragmatics. To appear in *Studies in Language.*
- Güldemann, Tom (1996): *Verbalmorphologie und Nebenprädikation im Bantu: Eine Studie zur funktional motivierten Genese eines konjungationalen Subsystems.* Bochum: Brockmeyer.

REFERENCES

- Gussenhoven, Carlos (1983): Focus, mode and the nucleus. *Journal of Linguistics*, 19, 377-314.
- Guthrie, M. (1967): *The Classification of Bantu Languages*. London: Dawsons of Pall Mall.
- Heine, Bernd & Reh, Mechthild (1984): *Grammaticalization and Reanalysis in African Languages*. Hamburg: Buske.
- Höhle, Tilman N. (1992): Über Verum-Fokus im Deutschen. In: Jacobs, Joachim (ed.): *Informationsstruktur und Grammatik*. (pp. 112-141). Opladen: Westdeutscher Verlag.
- Horvath, Julia (1986): *FOCUS in the Theory of Grammar and the Syntax of Hungarian*. Dordrecht: Foris Publications.
- Horvath, Julia (1995): Structural Focus, Structural Case, and the Notion of Feature-Assignments. In: Kiss, Katalin É. (ed.): *Discourse Configurational Languages*. (pp. 28-64). Oxford: Oxford University Press.
- Hyman, L. (ed.) (1979): *Aghem Grammatical Structure*. Los Angeles: USC. (= Southern California Occasional Papers in Linguistics 7)
- Hyman, Larry (1999): The Interaction between Focus and Tone in Bantu. In: Rebuschi, Georges & Tuller, Laurice (eds.): *The Grammar of Focus*. (pp. 151-177). Amsterdam, Philadelphia: John Benjamins (= Linguistics Today 24).
- Inkelas, Sharon & Zec, Draga (eds.) (1990): *The phonology-syntax connection*. Chicago: University of Chicago Press.
- Jackendoff, R. (1972): *Semantic Interpretation in Generative Grammar*. Cambridge, MA: MIT Press.
- Jacobs, Joachim (ed.) (1992): *Informationsstruktur und Grammatik*. Opladen: Westdeutscher Verlag.
- Jacobs, Joachim (1984): Funktionale Satzperspektive und Illokutionssemantik. *Linguistische Berichte*, 91, 25-58.
- Jakobson, R. & Kawamoto, S. (eds.) (1970): *Studies in General and Oriental Linguistics*. Tokyo: TEC.
- Johnson, M. R. (1978): A Semantic Analysis of Kikuyu Tense and Aspect. Unpublished Ph.D. Thesis, Ohio State University.
- Johnson, Marion R. (1980): A semantic description of temporal reference in the Kikuyu verb. *Studies in African Linguistics*, 11, 269-320.
- Kanerva, Jonni (1990): *Focus and phrasing in Chichewa Phonology*. New York: Garland.
- Kanerva, Jonni M. (1990a): Focusing on Phonological Phrases in Chichewa. In: Inkelas, Sharon & Zec, Draga (eds.): *The phonology-syntax connection*. (pp. 145-161). Chicago: University of Chicago Press.
- Kaye, J. & Koopman, H. & Sportiche, D. et. al. (eds.) (1983): *Current Approaches to African Linguistics, Vol. 2*. Dordrecht: Foris.
- Kim, Chin-Wu & Stahlke, Herbert (eds.) (1971): *Papers in African Linguistics*. Edmonton/Champaign: Linguistic Research, Inc.
- Kiss, Katalin É. (ed.) (1995): *Discourse Configurational Languages*. Oxford: Oxford University Press.
- Kiss, Katalin É. (1987): *Configurationality in Hungarian*. Budapest: Akadémiai Kiadó.
- Kiss, Katalin É. (1998): Identificational Focus versus Information Focus. *Language*, 74, 245-273.
- Kiss, Katalin É. (2002): *The syntax of Hungarian*. Cambridge: Cambridge University Press.
- König, E. (1991): *The meaning of focus particles. A comparative perspective*. London, New York: Routledge.
- Krifka, Manfred (1992): A Compositional Semantics for Multiple Focus Constructions. In: Jacobs, Joachim (ed.): *Informationsstruktur und Grammatik*. (pp. 17-53). Opladen: Westdeutscher Verlag.
- Krifka, Manfred (2001): For a Structured Meaning Account of Questions and Answers. In: Fery, Caroline & Sternefeld, Wolfgang (eds.): *Audiatur Vox Sapientia: A Festschrift for Arnim von Stechow*. (pp. 287-319). Berlin: Akademie Verlag. (= studia grammatica 52).
- Lambrecht, Knud (1994): *Information structure and sentence form: Topic, focus, and the mental representation of discourse referents*. Cambridge: Cambridge University Press.

- McCawley, James D. (1968): Lexical Insertion in a transformational grammar without deep structure. *Papers from the Fourth Regional Meeting of the Chicago Linguistics Society*.
- Mugane, John M. (1997): *A paradigmatic grammar of Gikuyu*. Stanford: CSLI Publications.
- Myers, Amy (1971): Assertion and Presupposition in Kikuyu. In: Kim, Chin-Wu & Stahlke, Herbert (eds.): *Papers in African Linguistics*. (pp. 135-140). Edmonton/ Champaign: Linguistic Research, Inc.
- Odden, David (ed.) (1987): *Current Approaches to African Linguistics, Vol. 4*. Dordrecht: Foris.
- Ortiz de Urbina, Jon (1995): Residual verb second and verb first in Basque. In: Kiss, Katalin É. (ed.): *Discourse Configurational Languages*. (pp. 99-121). Oxford: Oxford University Press.
- Pratt, Mary (1972): Tone in some Kikuyu verb forms. *Studies in African Linguistics*, 3, 325-377.
- Prince, Ellen F. (1978): A comparison of wh-clefts and it-clefts in discourse. *Language*, 45, 883-906.
- Puskás, Genoveva (2000): *Word order in Hungarian: The syntax of A'-positions*. Amsterdam, Philadelphia: John Benjamins.
- Rebuschi, Georges & Tuller, Laurice (eds.) (1999): *The Grammar of Focus*. Amsterdam, Philadelphia: John Benjamins (= Linguistics Today 24).
- Rebuschi, Georges & Tuller, Laurice (1999): The Grammar of Focus: An Introduction. In: Rebuschi, Georges & Tuller, Laurice (eds.): *The Grammar of Focus*. (pp. 1-22). Amsterdam, Philadelphia: John Benjamins.
- Rooth, M. (1985): Association with Focus. Unpublished Ph.D. Thesis, University of Massachusetts at Amherst.
- Rooth, M. (1992): A Theory of Focus Interpretation. *Natural Language Semantics*, 1, 75-116.
- Ross, J. R. (1967): Constraints on Variables in Syntax. Unpublished Ph.D. dissertation, M.I.T.
- Rudin, C. (1986): *Aspects of Bulgarian Syntax: Complementizers and Wh-Constructions*. Columbus: Slavica.
- Schachter, Paul (1973): Focus and relativization. *Language*, 49, 19-46.
- Schwarzschild, Roger (1999): GIVENness, AvoidF and other Constraints on the Placement of Accent. *Natural Language Semantics*, 7, 141-177.
- Selkirk, Elisabeth O. (1984): *Phonology and Syntax*. Cambridge, MA: MIT Press
- von Stechow, Arnim (1990): Focusing and backgrounding operators. In: Abraham, W. (ed.): *Discourse Particles*. (pp. 37-84). Amsterdam: John Benjamins.
- von Stechow, A. & Uhlmann, S. (1986): Some remarks on focus projection. In: Abraham, W. & Meij, S. de (eds.): *Topic, Focus and Configurationality*. Amsterdam: John Benjamins.
- Szabolcsi, Anna (1981): The semantics of Topic-Focus Articulation. In: Groenendijk, Jeroen & Janssen, T. & Stokhof, M. (eds.): *Formal Methods in the Study of Language*. (pp. 513-540). Amsterdam.
- Tsimpli, Ianthi M. (1995): Focusing in Modern Greek. In: Kiss, Katalin É. (ed.): *Discourse Configurational Languages*. (pp. 176-206). Oxford: Oxford University Press.
- Watters, J. (1979): Focus in Aghem. In: Hyman, L. (ed.): *Aghem Grammatical Structure*. Los Angeles.

Kontaktadressen der Autoren

Markus Fischer

Reichenbacher Str. 166

10999 Berlin

e-mail: markus.fischer@rz.hu-berlin.de

oder: fischer74@t-online.de

Florian Schwarz

Department of Linguistics

University of Massachusetts,

Amherst 01003

e-mail: florian@linguist.umass.edu