Appendix A: Instructions for participants

Instructions for the participants in the experiments were minimal. They included a short written description of what we mean by *prominence* and *boundaries*, respectively. For prominences, it was explicitly stated that underlining more than one word per excerpt was allowed. No audio examples were given, but both instructions contained a written example that illustrated how to mark either prominences or boundaries, and how choices could be corrected, if necessary (see the original instructions in Indonesian (I and II) and German (III and IV), with English translations provided). The German participants carried out the experiments online,[1] as briefly outlined at the beginning of section 3. Due to unstable electricity and lack of a reliable server environment, the Papuan participants were to handle the tasks in an analogue format using pen and paper.

The data in (1) show an example of one of the PM excerpts, including glosses and translation (1a), and how it was presented to the participants of the experiment (1b). (1c) shows the prominence choices made by one of the PM participants, (1d) indicates the boundary positions perceived by another PM participant. (2b) and (2c) exemplify the German online setup and the choices made by two German raters – one for prominences (2b) and one for boundaries (2c). The glossed examples in (1a) and (2a) were not part of the actual experiment, but are only added here for illustration purposes.

(1) Papuan Malay

    a. *yang tiga orang ini pegang topi satu*
       REL three person DEM carry hat one

       'The three people are carrying a hat.'

    b. *yang tiga orang ini pegang topi satu*

    c. *<u>yang</u> tiga orang <u>ini</u> pegang <u>topi</u> satu*

    d. *yang /tiga orang ini /pegang topi satu*

(2) German

    a. *dann kam ihm   ein äh Mädchen entgegen auch aufm Fahrrad*
       then came 3s.M.DAT a   INTJ girl   towards   also on_a bike
       'Then there was a girl coming towards him, also on a bike.'

<div align="center">

Wiedergabe

</div>

    b. dann kam ihm ein äh Mädchen entgegen auch aufm Fahrrad

<div align="center">

Weiter

</div>

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c. dann kam ihm ein äh|Mädchen entgegen|auch aufm Fahrrad

Weiter

I. Indonesian instructions for the prominence experiments

Pertama-tama kami mengucapkan terima kasih karena Anda bersedia berpartisipasi dalam eksperimen tentang bagaimana Anda memahami bahasa. Jawaban yang Anda berikan tidak ada yang salah atau benar karena semuanya bergantung pada rasa bahasa.

Dalam berbicara seseorang akan mengucapkan beberapa atau banyak kata dalam sebuah kalimat dengan nada yang lebih menonjol dibandingkan dengan kata-kata lain yang terdapat dalam kalimat tersebut. Kata-kata dengan nada yang menonjol ini biasanya dapat dirasakan oleh pendengarnya. Tugas Anda adalah menandai (menggarisbawahi) kata-kata yang nadanya Anda dengar lebih menonjol dibandingkan dengan kata-kata lain dalam rekaman kalimat yang akan Anda putar.

Berikut ini Anda akan diputarkan 40 kalimat dalam Bahasa Melayu Papua/Bahasa Jerman. Setiap kalimat juga akan disajikan dalam bentuk tertulis. Untuk mulai silakan klik **Contoh 1**, dst.

Tugas Anda adalah menggarisbawahi **semua** kata yang nadanya Anda anggap lebih menonjol (mis. lebih tinggi) dibandingkan dengan kata-kata lain pada setiap rekaman kalimat yang Anda dengarkan. Silakan garis bawahi kata tersebut dengan cara seperti ini:

Dia melihat <u>sapi</u>

English translation of the Indonesian instructions for the prominence experiments

First of all, we want to thank you for participating in our experiment on how people perceive language. There is no right or wrong answer - we are just interested in your innate sense of language.

When talking, people will utter some words within a sentence in a way that makes them stick out when compared to other words within the same sentence. The words that stick out can usually be perceived by the hearer. Your task in this experiment is to point out (underline) all words that you perceive to be sticking out compared to the rest of the utterance in the recordings that we will play to you.

You will hear 40 sentences in Papuan Malay/German. You will also receive each sentence as a written transcript. To start, please click **Example 1**, and so on.

Your task is to underline **all** words that you perceive to stick out (e.g., they are higher) compared to the other words in each recording that you will hear. Please underline your choice in the following way:

He sees a <u>cow</u>

Dalam hal ini, Anda dimungkinkan untuk memilih lebih dari satu kata pada setiap rekaman kalimat!

It is possible to choose more than one word for each recording!

Dia melihat sapi dan kuda makan rumput

He sees a cow and a horse eating grass

Anda *dapat* memutar setiap rekaman kalimat sebanyak dua kali. Akan tetapi, tidak memungkinkan untuk menghentikan rekaman pada saat contoh kalimat sedang diputar.

You can play each recording twice. It will not be possible to stop the recording while it is playing.

Jika *Anda* harus mengoreksi pilihan Anda, silakan coret kata yang telah Anda garis bawahi dengan cara seperti ini:

If you want to correct your choice, please cross out the underlined word that you do not want to select like this:

sapi

cow

Selamat mengikuti eksperimen ini!

Enjoy the experiment!

II. Indonesian instructions for the boundary experiments

English translation of the Indonesian instructions for the boundary experiments

Ketika seseorang berbicara, dia akan membagi ucapan mereka menjadi potongan-potongan. Potongan-potongan tersebut membentuk kelompok kata-kata yang memudahkan pendengar untuk memahami ucapan pembicara. Potongan-potongan tersebut penting terutama saat pembicara memproduksi ucapan yang panjang.

When people speak, they separate their utterances into smaller chunks. These chunks are made up of words and help the hearer to understand the utterance. They are especially important if the speaker is producing coherent speech over a longer period.

Contoh potongan yang mungkin Anda ketahui adalah potongan nomor ketika Anda memberi tahu nomor telepon Anda kepada orang lain. Biasanya, Anda tidak setiap kali memberi satu nomor (0, 8, 1, 3 …), tetapi Anda akan memotong nomor hp tersebut menjadi kelompok-kelompok yang terdiri atas dua, tiga, atau empat angka (081, 358, 772 …).

An example you might be familiar with is the chunking of digits when giving somebody your telephone number. Instead of spelling one digit after another (0, 8, 1, 3 …), it is common to divide the number into units consisting of two, three, or four digits each (081, 358, 772 …)

Untuk rekaman yang akan Anda dengar (dalam Basaha Melayu Papua/Bahasa Jerman), Anda diminta untuk menandai potongan dengan cara menyisipkan garis tegak lurus atau vertikal (pada cetakan)

For the recordings you will hear (in Papuan Malay/German), you are asked to mark those chunks by inserting a vertical line (on the printout) to divide what you perceive to be a unit. The boundary between two

untuk bagian yang Anda dengar sebagai satu potongan. Batas antara dua potongan tidak harus sama dengan lokasi tempat Anda akan menulis tanda koma, titik, atau tanda baca lainnya.

chunks does not necessarily have to coincide with where one would write a comma, a full stop or any other punctuation.

Jadi, Anda harus benar-benar hati-hati mendengar ujaran dan tandai batas yang Anda dengar sebagai akhir sebuah potongan.

So please listen carefully and draw the line where you hear the end of one unit.

Sebuah potongan mungkin saja berupa satu kata, atau mungkin terdiri atas beberapa kata, dan ukuran (jumlah kata) dalam setiap potongan dari para pembicara bisa saja berbeda-beda dalam satu ujaran. Beberapa ujaran mungkin Anda dengar konsisten, yaitu terdiri atas satu potongan saja. Jika demikian, Anda tidak perlu menandai batas potongan.

One unit might consist of one word only, or it can contain several words - the size of a unit might vary from utterance to utterance. Some recordings might consist of one unit only. If this is the case, you do not need to draw a boundary.

Contoh:
081|358|772…
0813|5877|2…
Bapak saya | sudah datang
Bapak | saya sudah datang

Example:[2]
081|358|772…
0813|5877|2…
let's eat Grandpa
let's eat | Grandpa

III. German instructions for the prominence experiments

English translation of the German instructions for the prominence experiments

Zunächst einmal vielen Dank, dass Sie an unserem Experiment teilnehmen. Es dauert etwa 20 bis 30 Minuten.

First of all, we want to thank you for participating in our experiment. It will take about 20 to 30 minutes.

Im Folgenden hören Sie 40 Sätze des Papua Malay/des Deutschen. Um eine Tondatei zu starten, klicken Sie bitte auf „Wiedergabe".

In the following, you will hear 40 sentences in Papuan Malay/German. To play the sound file, please click on the 'play' button.

Ihre Aufgabe besteht darin, sämtliche Wörter, die Sie in einer Äußerung als **betont** bzw. **hervorgehoben** wahrnehmen, anzuklicken - markierte Wörter färben sich rot. Sollten Sie Korrekturen vornehmen wollen, klicken Sie ein zweites Mal auf das

Your task will be to click on all the words that you perceive to be **stressed** or to **stand out** within the utterance - marked words will turn red. If you wish to make a correction, click on the word for a second time and the marking will disappear.

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[2] The English example is not a direct translation of the Indonesian one. In each language, the example illustrates that setting different boundaries can change the meaning of an utterance.

markierte Wort, um die Markierung rückgängig zu machen.

Hierbei können Sie nichts falsch machen, es kommt uns allein auf Ihr Bauchgefühl an.

You can play every sentence twice, but it will not be possible to stop the recording

IV. German instructions for the boundary experiments

Zunächst einmal vielen Dank, dass Sie an diesem Experiment teilnehmen. Es dauert etwa 20-30 Minuten.

Sprecher gruppieren die Wörter einer Äußerung in Blöcke. Diese Blöcke von Wörtern helfen dem Gesprächspartner, die Äußerung zu verstehen. Sie sind von besonderer Wichtigkeit, wenn Sprecher lange und zusammenhängende Aussagen produzieren.

Ein Beispiel hierfür wäre die Untergliederung beim Durchgeben einer Telefonnummer. Anstelle eine Nummer nach der anderen anzugeben (0, 2, 2, 1), ist es üblich diese in Gruppen von zwei, drei oder vier Ziffern zusammenzufügen (z.B. 0221 470 41 09).

Ihre Aufgabe besteht darin, die Äußerungen, die Sie im Folgenden hören werden, in ebensolche Blöcke von Wörtern zu untergliedern. Durch Anklicken des letzten Wortes eines solchen Blocks können Sie eine Grenze setzen, welche dann hinter dem angeklickten Wort erscheint.

Falls Sie eine Grenze wieder entfernen wollen, klicken Sie einfach ein zweites Mal auf das entsprechende Wort. Es steht Ihnen frei, wie viele Grenzen Sie setzen wollen.

Lassen Sie sich nicht davon entmutigen, wenn Sie das Gefühl haben, nicht alle Grenzen perfekt eingetragen zu haben. Sie können bei diesem Experiment nichts falsch machen, es kommt allein auf Ihr Bauchgefühl an.

English translation of the German instructions for the boundary experiments

First of all, we want to thank you for participating in our experiment. It will take about 20 to 30 minutes.

When people speak, they separate their utterances into smaller chunks. These chunks are made up of words and help the hearer to understand the utterance. They are especially important if the speaker is producing coherent speech over a longer period

An example you might be familiar with is the chunking of digits when giving somebody your telephone number. Instead of spelling one digit after another (0, 8, 1, 3 …), it is common to divide the number into units consisting of two, three, or four digits each (081, 358, 772 …)

Your task is to break up each of the recorded utterances you hear into such chunks. By clicking on the last word of a chunk you can insert a boundary, which will then appear after the word you clicked on.

If you wish to remove the boundary again, simply click on the word for a second time. You are free to mark as many boundaries as you like.

There is no need to be discouraged if you have the feeling that you could not place a boundary correctly. There is no right or wrong answer - we are just interested in your innate sense of language.

Sie könne jeden der Sätze zweimal hören, allerdings ist es nicht möglich, die Tondatei während des Abspielens zu unterbrechen.

You can play every sentence twice, but it will not be possible to stop the recording.

References

Mahrt, T. (2016). *LMEDS: Language markup and experimental design software*. Retrieved from https://github.com/timmahrt/LMEDS