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A conversation with Bencie Woll: A few thoughts on non-manual markers

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Resumo

Nesta entrevista para a edição especial da RevIncluso, Bencie Woll nos leva através de sua exploração do uso de ações da boca em línguas de sinais e a iconicidade associada a marcadores não manuais que contribuem para o significado e compreensão das mensagens sinalizadas. Isso, somado à sua ilustre carreira na linguística e sua alta dedicação à comunidade surda, faz dela uma personalidade de grande relevância para esta conversa. No geral, a pesquisa da professora Woll sobre iconicidade e ações da boca em línguas de sinais avançou nossa compreensão de como as línguas de sinais funcionam e como elas são processadas pelos usuários. Seu trabalho também teve aplicações práticas no desenvolvimento de tecnologia de reconhecimento de línguas de sinais e materiais educacionais para alunos surdos. Com o trabalho contínuo de Woll na área, inovando constantemente em suas pesquisas e parcerias, a professora aproveita alguns momentos de sua história para compartilhar uma visão única do presente e sua perspectiva de futuro dos estudos de marcadores não manuais.

Palavras-chave: Língua brasileira de sinais, Língua de sinais Britânica, Ações Faciais.

Abstract

In this interview for the special issue of RevIncluso, Bencie Woll explores the use of mouth actions in sign languages and the iconicity associated with non-manual markers they create for the meaning and understanding of signed messages. That, coupled with her illustrious career in linguistics and her high dedication to the Deaf community, makes her a cult figure for this conversation. Overall, Professor Woll's research on iconicity and actions of the mouth in sign languages has improved our understanding of how sign languages work and how they are processed by users. Her work has also had practical applications in developing sign language

recognition technology and educational materials for deaf students. With Woll's continuous work in the area, constantly innovating in her research and partnerships, the professor takes advantage of some moments of her history to share a unique vision of the present and her perspective of the future of the study of non-manual markers.

Keywords: Brazilian Sign Language, Sign Language of the Netherlands, facial actions.

Resumen

En esta entrevista para el número especial de RevIncluso, Bencie Woll explora el uso de las acciones de la boca en los lenguajes de señas y la iconicidad asociada con los marcadores no manuales que crean para el significado y la comprensión de los mensajes de señas. Eso, sumado a su ilustre carrera en lingüística y su alta dedicación a la comunidad sorda, la convierte en una figura de culto para esta conversación. En general, la investigación del profesor Woll sobre la iconicidad y las acciones de la boca en los lenguajes de señas ha mejorado nuestra comprensión de cómo funcionan los lenguajes de señas y cómo los usuarios los procesan. Su trabajo también ha tenido aplicaciones prácticas en el desarrollo de tecnología de reconocimiento de lenguaje de señas y materiales educativos para estudiantes sordos. Con el trabajo continuo de Woll en el área, innovando constantemente en sus investigaciones y alianzas, la profesora aprovecha algunos momentos de su historia para compartir una visión única del presente y su perspectiva del futuro del estudio de los marcadores no manuales.

Palabra clave: Lengua de Señas Brasileña, Lengua de Señas Britania, gestos faciales.

A conversation with Bencie Woll: A few thoughts on non-manual markers

Professor Bencie Woll is a renowned British linguist and sign language researcher at the University College London where she founded and was the first Director of the Deafness Cognition and Language Research Centre (DCAL). She was born in the United States in 1950 and after completing her undergraduate studies at the University of Pennsylvania, moved to England in 1970, where she completed her Master's degree and PhD. Professor Woll is a leading expert in sign language linguistics and bilingualism, with a particular focus on British Sign Language (BSL). Her research has been influential in shaping our understanding of the structure and grammar of sign languages, as well as the cognitive and linguistic development of deaf children. She was the first sign language professor in the United Kingdom.

One of Professor Woll's major contributions to the field of sign language research was the establishment, together with colleagues at DCAL, of the BSL Corpus Project, a large-scale database of British Sign Language. The project involved recording and analyzing videos of 250 signers of BSL from all regions of the UK, and it has since become an invaluable resource for researchers and educators. Her research has also explored the use of mouth actions in sign languages. Mouth actions are non-manual signals, such as lip movements or facial expressions, that accompany sign language signs. Professor Woll's work has shown that mouth actions can contribute to the meaning of signs, and that they play an important role in sign language morphology and syntax.

Professor Woll (Figure 1) has received numerous awards and honors for her contributions to linguistics and sign language research. In 2012, she was elected as a Fellow of the British Academy, and in 2016 became a Fellow of the American Association for the Advancement of Science. Additionally, she co-founded the Centre for Deaf Studies at Bristol University and has

researched the linguistics of BSL and Deaf Studies for over 40 years. Due to her pioneering and extensive work in the sign language linguistic field, it was appropriate to interview her about studies of nonmanual markers among the sign languages that she has knowledge of. This took place in March of 2023.

Figure 1. Professor Bencie Woll.

Emely: We are going to start with the topic most familiar to me, which is your work on mouth movements. In (da Silva E, Costa P D P, Kumada K M O, & De Martino J M, 2022), we briefly mention visemes and mouth actions. You have significant work treating mouth actions in sign language. Could you elaborate on the studies that you have done? What types of mouth actions most commonly appears in your analyses? Which one has surprised you, as a mouth action?

Bencie: I have published research on several of the different roles of the mouth in sign language. These fall into several groups:

1) echo phonology, where the movement of the mouth echoes or mirrors the movement of the hand (Woll B, 2014);

2) the role of the mouth in visual prosody (Fenlon J, Denmark T, Campbell R, Woll B, 2007);

3) the role of the mouth in signers following stroke (Marshall J, Atkinson JR, Woll B, Thacker A, 2005; Atkinson JR, Campbell R, Marshall J, Thacker A, Woll B, 2004); and

4) how mouth actions (in particular mouthing) can be used to assist in machine learning in relation to automated translation of sign language (Albanie S, Varol G, Momeni L, Afouras T, Chung J S, Fox N, & Zisserman A, 2020; Albanie S, Varol G, Momeni L, Bull H, Afouras T, Chowdhury H, Fox N, Woll B, Cooper R, McPartland A, Zisserman A, 2021).

Emely: Another side of your work has demonstrated the important role of iconicity[1] in sign languages, and how it contributes to the meaning and comprehension of signed messages. Can you talk a little about the iconicity of non-manual markers?

Bencie: Most non-manual markers are both iconic and conventionalised. This can be seen at many levels. For example, many citation forms of lexical signs (all examples are from BSL unless otherwise specified) are accompanied by iconic mouth actions or other non-manual actions (e.g. BALLOON ‘puffed cheeks’; CHEW ‘chewing action of the mouth’; SLEEP ‘closing of the eyes’; SAD ‘down-turned corners of the mouth’, etc.). The non-manual actions which have been described as adverbial or adjectival (‘effortfully’, ‘carelessly’, ‘huge’, ‘tiny’, etc. are very similar to non-manual actions accompanying spoken language, and the eye and brow configurations associated with ‘yes/no’ and ‘wh-‘ questions are very similar to the those associated with ‘surprise’ and ‘puzzlement’ respectively (Campbell R, Woll B, Benson PJ, & Wallace SB, 1999).

[1] Iconicity is the property of signs or symbols that resemble or evoke what they represent. In sign languages, iconicity is achieved through the use of manual, facial and body gestures that are associated in their form with the form of the concept.

Emely: Some studies of facial expressions in sign languages indicate differences between the associated cultures. For example, Brazilian Sign Language uses a wide variety of associated facial expressions, while Japanese Sign Language has fewer documented facial expressions associated with the language. Do you believe that there may be a direct relationship between the use of linguistic facial expressions and culture? Could you comment a little on your view on this aspect?

Bencie: As indicated in my response to the previous question, there is clearly a close relationship between facial expressions and culture, especially in relation to conventionalised non-manual gestures used by the hearing population. For example, in Mediterranean regions, a conventional non-manual gesture for negation is the 'head toss' (see Figure 2), while in most of Europe, a side to side head shake commonly indicates negation. In Greek Sign Language, both the head toss and head shake are used to indicate negation; additionally, a manual negator which clearly derives from the head toss (see Figure 3) is also found (Antzakas K & Woll B, 2002).

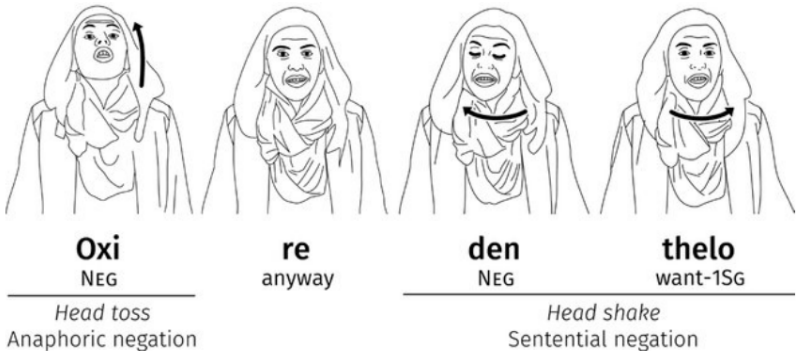

Figure 2. Greek head toss and head shake gestures expressing negation. Source: Bross (2020).

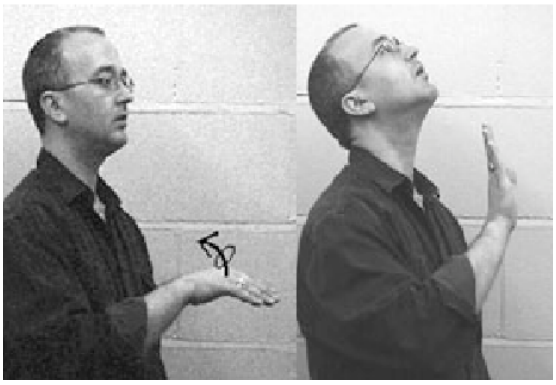

Figure 3. Greek Sign Language head toss and manual sign NOT. Source: Zeshan (2006).

The embedding of deaf culture and sign languages within majority hearing populations with their own cultures means that conventional manual and non-manual gestures and features of visual prosody serve as a source for many elements of sign languages.

Emely: What are important developments in sign language, particularly in non-manual markers?

Bencie: Of current importance is the recognition of the relationship between facial expressions and facial gesture as mentioned above and the ongoing debate about the linguistic status of these within sign languages. This area of research is making an important contribution to the debate about whether there is a clear break between what should be considered linguistic and what should be considered non-linguistic. This has been accompanied by increased interest in multimodal features of spoken language. Another important area is research on clinical populations of signers: individuals with developmental or acquired atypicalities in sign language, including those on the autistic spectrum, signers with stroke, signers with dementia, etc. These can provide important insights into the nature of language impairments independently of modality (Atkinson JR, Denmark T, Marshall J, Mummery C & Woll B, 2015; Denmark T, Atkinson J, Campbell R, & Swettenham J, 2014; Atkinson JR, Marshall J, Woll B, Thacker A, 2005).

Emely: Which authors or study groups on nonmanual markers have most heavily influenced your research? Why?

Bencie: My work has been influenced by many sign language researchers in relation to nonmanual markers. Marit Vogt-Svendsen was the first to focus on mouthing (Vogt-Svendsen, M., 1981). The insights of my collaborators in the ECHO project, especially Onno Crasborn and Johanna Mesch, have been very important in my later work (Crasborn O, van der Kooij E, Waters D, Woll B, Mesch J, 2008). In addition, the work of contemporary researchers on gesture and multimodality in human communication has formed an important bridge to work on communication in spoken language (Özyürek A & Woll B, 2019).

Emely: It has been over 40 years of studying sign language for you, right professor? That gives you a unique power of observation of the field. Can you talk a little about your feelings about the evolution of studies, specifically in non-manual markers?

Bencie: When sign language research started, there was enormous emphasis on proving that sign languages were ‘real’ languages and very similar to spoken languages. This resulted in limited interest in iconicity, failure to address gestural qualities in sign languages, and - in relation to non-manual markers - ignoring the role of mouthing. The last of these was particularly true of research on ASL in contrast to European sign language research. Since then there has been an enormous shift from trying to see everything in human communication as either linguistic or non-linguistic, to recognising that the ‘cataclysmic break’ between gesture and language is not so clear-cut.

Emely: What in our field has most surprised you recently?

Bencie: It's not so much of a surprise but a very welcome development in the eyes of someone like myself who started out as a researcher on language acquisition, to see the accumulating linguistic, cognitive and neuroscientific evidence of the importance of timely acquisition of a sign language as a first language by deaf children.

Emely: What is your current research interest?

Bencie: Although I am officially retired, I am still working in a number of areas: deafness, sign language and the brain, sign language acquisition, and machine translation between written language and sign language.

Emely: Finally, which of the Sign Language challenges would you like to see research in the near future?

Bencie: More than a question of which challenges research should address, the overwhelming priority for me is the development of sign language researchers who are themselves deaf. They will be the researchers who lead on identifying and meeting current and future research challenges.

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