ISSN 3058-2644

수어학과 언어융합연구

Sign Languages and Linguistics Convergence Research

제 1 권 제 2 호 | 2024년 12월 |



조선대학교 언어융합연구소
Language Convergence Research Institute

수어학과 언어융합연구 Volume 1, Number 2, December 2024 ISSN 3058-2644
Sign Languages and Linguistics Convergence Research

조선대학교 언어융합연구소
Language Convergence Research Institute

수어학과 언어융합연구 Volume 1, Number 2, December 2024 ISSN 3058-2644
Sign Languages and Linguistics Convergence Research

목 차

신홍임 워드 클라우드 기법을 이용한 청인 대학생의 한국 수어에 대한 진정성 인식과 학습효과 ····· 179

임수진 문제 해결 과정의 수어 표현과 인지 기제 ····· 199

임지룡 북한 『손말사전』의 성격과 특성 ····· 215

Ahmad, Mai
Kwon, Soon-Bok Deontic and Epistemic Modality in Korean Sign Language ····· 261

Brdar-Szabó, Rita
Brdar, Mario Blending in Spoken/Written Languages and in Sign Languages ····· 287

Jeon, Haewon A Bibliometric Analysis of Themes and Network Structures in Sign Language Policy ····· 331

Jo, Charmhun
Park, Yubin Conceptual Metaphor and Double Mapping in Chinese Sign Language ····· 353

Lee, Sunghwa
Jhang, Se-Eun A Global Bibliometric Analysis of Sign Language Research: Trends and Technological Evolution ····· 371

Rhee, Seongha Analogy-Driven Grammaticalization across Categories: The Case of 'Exactness' in Korean ····· 405

Yoon, James Hye Suk
Park, Chongwon When Formalism Meets Functionalism: An Overview of Korean Multiple Nominative Constructions ····· 431

조선대학교 언어융합연구소
Language Convergence Research Institute

Sign Languages and Linguistics Convergence Research
Vol. 1. No. 2 (2024) pp.179~198

워드 클라우드 기법을 이용한 청인 대학생의 한국 수어에 대한 진정성 인식과 학습효과

신 홍 임
(국립순천대학교)

Shin, Hong-Im. 2024. Perceptions of Authenticity and Learning Effects of Korean Sign Language among Hearing College Students Using the Word Cloud Technique. ***Sign Languages and Linguistics Convergence Research,*** *1*(2), 179-198. Is there a relationship between students' perceptions of language authenticity and learning outcomes? This study aimed to explore the experiences of sign language users regarding the authenticity of sign language and its learning effects. Self-reported surveys were conducted with hearing university students (n=40) on the following topics: commonalities between sign language and other languages, unique features distinguishing sign language from other languages, positive experiences perceiving sign language as their own language, and overall perceptions of sign language authenticity. A total of 89.6% of students reported changes in their use of facial expressions and gestures. Based on word cloud analysis, the findings revealed that sign language users recognized several aspects of its authenticity, including improved communication skills, enhanced emotional expression, positive emotional experiences, behavioral changes, and increased attention to others. These results suggest that perceiving the authenticity of sign language may not only enhance communication skills but also influence behavioral and emotional aspects of social interactions with others.

Key Words: Korean Sign Language, Authenticity, Visual Language, Gesture, Learning Effect

1. 들어가기

그리스어의 authentikós (autós, 자신)에서 유래하는 진정성은 '본래의', '자신의', '신뢰성' 등의 다양한 의미와 연관된다. 진정성의 개념은 다양한 학문에서 관심을 받아왔으며, 일반적으로 정적이고, 이분법적인 관점에서 다루어진다. 예를 들어, 어떤 사람이 이 도자기가 중국 명나라의 도자기가 진정으로 맞는지를 묻는다면, 명나라 도자기라는 고정된 특성에 비추어 "그렇다" 또는 "아니다"로 구분할 수 있을 것이다. 그러나 진정성은 사회적 관계의 측면에서 동적인 관점에서 생각해볼 수 있다(Lacoste et al., 2014). 동일한 도자기는 보는 사람에 따라 다르게 느껴질 수 있으며, 이러한 관계적 측면에서 도자기의 진정성이 다르게 평가될 수 있다. 역동적 관점에서의 진정성은 대상-사용자 간의 관계적 측면에서 적극적으로 구성되고, 인식되는 것이다. 진정성의 구성은 세 가지 다른 방식으로 구별할 수 있다. 첫째, 전통적인 권위에 의해 진정성이 결정되는 방식이다. 즉, 주어진 대상의 진정성이 권위에 의해 결정되는 방식입니다. 둘째, 진정성이 방법론적으로 조사되는 설명적 방식이다. 여기서는 수집된 증거자료의 신뢰성에 의해 진정성을 재구성하는 방법이다. 셋째, 진정성이 '현실 효과'를 창출하여 연출되는 수행적 방식이다. 즉, 콘텐츠의 신뢰성에 의해 사용자가 영향을 받으며, 콘텐츠의 진정성이 실현되는 방식이다. 사용자가 대상의 진정성을 인식하는 정도에 따라 대상의 진정성은 사용자에게도 영향을 끼치게 될까? 본 연구에서는 이 중에서 세 번째 진정성의 구성방식에 따라 진정성을 대상-사용자 간의 사회적 관계에 따라 구성되는 개념으로 이해하여, 진정성의 개념을 확인하고, 재구성하려 한다.

1.1 언어의 진정성

언어의 진정성은 언어 사용자가 수용하는 코드, 가치, 규범에 따라 태도, 행동 패턴, 아이디어의 일관성이 유지되는 것이다. 또한 언어의 진정성은 화자나 행위자가 특정 상황에서 그 언어의 고유한 것으로 인식하는, 다양한 방식을 설명하는 관계적 개념이다(Lacoste et al., 2014). 수어의 진정성(Sign Language Authenticity)에는 수어의 언어적 특징(예: 수어의 시공간 활용, 도상성, 동시성 등), 문화적 뉘앙스, 지역적 변이, 그리고 표정과 같은 비수지적 요소가 포함된다. 진정성 있는 수어는 농사회의 실제 사용을 반영하며, 교육, 미디어, 통역 등에서 정확성과 문화적 존중을 보장한다. 그렇다면 수어사용자가 자신이 사용하

는 수어의 진정성을 인식하는 것은 수어습득에 긍정적 영향을 끼치게 될까? 그동안 선행연구(김혜진, 2021; 박동진, 남기현, 2022)에서는 농인을 대상으로 수어습득, 수어인식과 정체성확립의 관계를 연구한데 비해, 본 연구에서는 선행연구를 확장하기 위해 청인대학생들을 대상으로 수어의 진정성에 대한 인식, 수어습득이후 의사소통방식의 변화 및 학습효과를 탐색하려 한다. 수어습득에서 학습자가 수어의 진정성을 인식하는 것은 중요한 문제인데, 이것은 그동안 수어가 독자적 언어로서 인식되지 못했던 것과 연결되어 있다.

진정성의 유형에는 정적 진정성과 역동적 진정성이 있다(Lacoste et al., 2014). 정적 진정성이 특정 언어가 내적으로 갖고 있는 진정성이라면, 역동적 진정성은 외부로부터 그 언어의 타당성을 검증하는 것이다. 예를 들어, 수어를 국가의 공용어로서 교육을 받을 권리를 인정한다면, 수어는 단순히 언어적 차원에서만 의미를 가지는 것은 아니다. 이러한 경우 수어는 수어사용자의 사고를 확장시키는데 영향을 끼칠 수 있으며, 새로운 문화를 형성하기도 한다(장은경 등, 2024). 또한 곽정란 등(2004)은 '농'의 개념이 수어의 사회적 수용에 따라 변화한다고 했는데, 이것은 농인뿐만 아니라 청인들이 수어를 어떻게 바라보는지도 농의 개념에 영향을 끼칠 가능성을 보여준다. 이에 따라 한 언어의 진정성은 다양한 수준(예: 권위, 전문지식, 실제 현실에서의 신뢰성 등)에서 “구성되며”, 시간이 지나도 일관된 속성으로 다양한 사용자에 의해 인식되는 것이다. 예를 들어, 시각적 언어인 수어의 도상성, 공간활용이나 동시성의 이득이 의미전달, 감정표현이나 정체성 형성의 측면에서 다양한 수어사용자에 의해 지각된다면, 이것은 수어의 진정성에 대한 인식으로 볼 수 있다. 본 연구에서는 청인대학생이 수어를 이중언어로서 습득했을 때, 수어의 진정성에 대한 인식이 수어 사용자의 정서적 및 행동적 측면에서 수어학습효과에 끼치는 영향을 살펴보려 한다,

1.2 한국 수어의 진정성에 대한 인식과 학습효과

지금까지 수어는 청각장애인이 사용하는 언어라는 신체적 결핍과 의료적 관점에서 인식되어 왔다. 수어를 장애의 관점에서 바라보는 생각은 음성언어로 말하기만이 인간에게 “정상적”이고 “자연스러운” 것이며, 이는 모든 청각장애인이 달성해야 할 목표라는 것이다(Baynton, 1996). 청각장애아동 교육에서 “순수 구화주의”(즉, 말하기만을 사용하고 수어를 사용하지 않는 것)를 널리 추진하는 경향은 19세기부터 현실로 존재해왔으며, 오늘날 많은 국가에서 수어가 공식적 공용언어로 사용되고 있음에도 불구하고 여전히 지속되고 있다(Kusters & Lucas,

2022).

이에 따라 수어의 언어적 지위는 오랫동안 논쟁의 대상이었으며, 특정 형태의 수어는 여전히 “비언어(nonlanguage)”로 분류되고 있다(Kusters & Lucas, 2022). 따라서 수어의 구분과 다른 수어 사용 방식(예: 제스처, 홈사인)과의 차별화는 핵심적인 문제로 여겨져 왔다. 또한 수어는 농인과 청인 모두에 의해 사용되며, 구어 및 문자 언어뿐만 아니라 점점 더 다른 수어들이 함께 사용되는 상황에서 활용되기 때문에 수어와 구어, 수어와 문자 언어, 그리고 수어 간의 복합적이고 다중양상적인 상호작용이 발생하고 있다. 이것은 사용자가 수어를 진정한 언어로서 인식하고 있는지에 대해 생각해보는 계기를 제공한다.

수어가 진정한 언어로서 어떤 특성을 갖추고 있는지를 ‘인식(recognition)’한다는 것은 매우 중요한 문제다. 왜냐하면 다른 음성언어의 경우 이 언어를 진정한 언어라는 것을 증명할 필요가 없고, 진정한 언어로서 인식하는 것은 매우 자동적이기 때문이다(Lacoste et al., 2014). ‘인식’의 개념은 수어 공동체가 자신들의 언어에 대한 법적 지위를 요구하는 데 중심이 되는 개념이다. 예를 들어, 수어가 “진정한” 언어로서의 기본 지위를 갖는 문제는 청각 장애 학생들의 교육 초기 단계에서 교육 언어를 결정하거나, 청각 장애인이 정보에 접근하고 사회에 전반적으로 참여하는 방식(예: 수어 통역사를 통한 참여)에 대한 결정에 막대한 영향을 끼친다.

또한 수어를 독자적인 언어로서 진정성을 증명해야 하는 이유는 수어가 농인공동체의 중요한 정체성 요소 중 하나이기 때문이다. Najarian(2008)에 의하면, 수어습득경험이 농인여성들의 정체감형성과정과 직결됨을 보여주었다. 수어는 단순한 의사소통 도구를 넘어서, 농정체성을 발달시키는데 핵심 요소로 나타났다. 농인 여성은 수어를 알게되면서 자신을 더 긍정적으로 인식하고, 농인으로서 자부심을 갖게 되는 긍정적 효과가 나타났다. 또한 수어사용은 농사회와 연결되며, 자신의 농정체성을 확립하는데 유의한 영향을 끼쳤다. 사회언어학에서는 특정 언어가 개인의 사회적 정체성과 어떻게 연결되는지를 연구하는데, 한국수어를 사용하는 농인들은 언어를 통해 자신의 공동체에 속해 있음을 인식하고, 그 안에서 사회적 소속감을 느낀다. 농인 공동체 내에서 한국 수어는 단순한 의사소통 수단을 넘어, 정체성을 확립하고 유지한다. 본 연구에서는 청인대학생이 수어를 습득할 때, 수어를 진정한 언어로서 자신의 언어로 지각하고, 수어의 진정성에 대한 인식이 수어학습효과에 끼치는 영향을 살펴보려 한다. 본 연구에서 수어학습효과는 수어사용을 통해 수어사용자의 정서적(예: 즐거움, 자신감) 및 행동적 측면(예: 표정, 제스처의 변화 등)에서 긍정적 변화가 나타났는지를 통해

측정하려 한다. 선행연구에서는 제 2외국어의 습득이후 이중언어 사용자에게 긍정적 변화가 나타났음을 보고하고 있다. 예를 들어, Freeman과 Marian(2016)의 연구에서는 이중언어를 습득하는 경험이 개인이 환경에서 사건을 해석하고 사고하는 방식에 변화를 가져옴을 보고하였다. 이 연구에서는 안구추적과 기능적 자기공명영상(fMRI)을 사용한 다양한 문헌연구를 통해 언어습득경험이 의사소통의 핵심 요소인 인지 통제와 감정을 어떻게 변화시키는지를 보여주었다. 불필요한 정보의 활성화를 억제하는 인지통제에서는 이중언어 사용자가 단일 언어 사용자에 비해 인지적 이득(예: 경쟁적 언어단서의 효율적 억제)을 보였다. 이것은 이중언어 사용자가 일반적으로 제 1언어의 한 단어를 들었을 때, 이와 경쟁하는 제 2언어의 다른 단어를 마음속에 떠올리게 되고, 상황에 맞게 적절한 단어를 선택하려면, 불필요한 단어를 억제하는 인지통제가 수시로 작동하기 때문에 단일언어 사용자보다 인지처리능력이 더 우수한 것으로 설명할 수 있다(Kroll, 2009). 또한 감정처리에서는 이중언어 사용자가 제1언어와 제2언어에서 언어적 맥락과 문화적 소속감이 감정적 사건의 저장 및 회상에 어떻게 영향을 미치는지를 보여주었다. 예를 들어, 특정 정서를 표현하는 단어가 제 1언어에 충분하지 않을 때, 이중언어 사용자는 제 2언어로 그 정서를 표현할 수 있는 이득이 있다(Pavlenko, 2008). 또한 Marian와 Kaushanskaya(2008)의 연구에서는 러시아어-영어 이중언어 사용자가 어린 나이에 미국으로 이주하였을 때, 성인기에 이주한 이중언어 사용자보다 러시아의 기억에 대해 더 많은 정서단어를 사용했고, 더 많은 긍정적 정서경험을 보고하였다. 연구자들은 이들이 어린시기에 이주했기 때문에 L2가 비교적 유창하고, L1만큼 우수하기 때문에 자신의 다양한 경험에 대해 회상하는 것이 수월했을 것으로 해석했다. 이 결과는 다양한 언어습득이 한 개인의 정서기억에 차별적 영향을 끼칠 수 있음을 보여준다.

위와 같이 선행연구에서는 음성언어를 중심으로 제 2외국어 학습의 영향을 보고하였던데 비해, 본 연구에서는 제 2외국어로서의 수어습득과 수어의 진정성에 대한 인식이 언어습득의 이득과 학습성과에 끼치는 영향을 분석하려 한다. Casey 등(2012)의 연구에는 미국수어를 습득한 청인대학생들이 연구자가 제시한 이야기를 표현할 때, 프랑스어, 스페인어나 이탈리어를 학습한 청인대학생들보다 자신의 표정과 제스처가 증가하고, 손짓이나 제스처의 모양/방향이 바뀐다고 인식함을 보고하였다. 이 연구가 흥미로운 이유는 단일양상 이중언어 사용자(두 개의 음성언어를 습득)와 이중양상 이중언어 사용자(시각언어와 음성언어)에 대한 비교이며, 이중언어를 성인기에 습득한 대학생을 대상으로 실시했기 때문이다. 비교적 이른 나이에 이중언어를 습득한 경우 제 1언어와 제 2언어가 제스처

의 사용에서 서로 영향을 준다는 증거가 보고되었다[1]. Casey와 Emmorey(2009)의 연구에서는 어린 시절부터 ASL(미국 수어)과 영어 모두에 노출된 이중양상 이중언어 사용자들은 단일양상 언어로서 영어만을 사용하는 사람들보다 이야기를 생산할 때 몸짓을 더 많이 사용하였다. 예를 들어, 만화에 대한 이야기를 할 때 주인공과 닮은 표현적 몸짓을 생산하였다. 그러나 성인기에 이중언어를 습득한 경우 제 2언어인 수어가 제 1언어인 음성언어에 영향을 끼치는지에 대해서는 아직까지 불명확하다. 이에 따라 본 연구에서는 Casey 등(2012)이 보고한 이중양상 이중언어습득의 이득을 한국수어를 습득한 청인대학생을 대상으로 재검증하려 한다.

수어습득이후 표정 및 제스처의 변화는 표정/제스처 수준을 넘어서는 인지능력향상을 보여줄 수 있다. 선행연구에서는 말과 함께하는 몸짓(co-speech gesture)이 기억력, 학습능력 및 공간인지(spatial cognition)에 도움을 준다는 것을 보고하였다(Broaders, Cook, Mitchell & Goldin-Meadow, 2007; Cook, Yip & Goldin-Meadow, 2010). 예를 들어, Cook 등(2010)의 연구에서는 연구참가자가 사건을 묘사하면서 몸짓을 사용했을 때, 사건을 회상하는 능력이 몸짓을 사용하지 않은 조건이나 비교 집단보다 더 뛰어났음을 보고하였다. 또한, Chu와 Kita(2011)의 연구에서는 말과 함께하는 제스처 뿐만 아니라 과제를 생각하면서 말없이 수행되는 "생각과 동반되는 제스처(co-thought gesture)"도 정신회전(mental rotation)과제 수행을 촉진한다는 것을 발견하였다. Emmorey 등(1993)의 연구에서는 유창한 미국수어-영어 이중언어 사용자가 비수어사용자보다 뛰어난 정신적 회전 능력을 가짐을 보고하였다.

또한 본 연구에서는 Casey 등(2012)의 연구를 확장하기 위해 청인대학생이 한국수어의 진정성에 어떻게 인식하는지를 측정하고, 시각적 언어인 수어가 음성언어를 모국어로 사용하는 청인대학생에게도 긍정적 영향을 끼치는지를 살펴

1) Pika, Nicoladis, Marentette(2006)의 연구에서는 성인이 되어 스페인어를 배우고(최소 1년 동안 스페인어 사용 국가에서 거주) 영어를 구사하는 화자들이 영어를 구사할 때, 단일 언어 사용자보다 몸짓을 더 많이 사용한다는 결과를 발견했다. 하지만 이러한 차이는 스페인어 학습으로 인한 언어적 효과보다는 문화적 노출의 결과일 가능성도 있다. Brown과 Gullberg(2008)의 연구에서는 중급 수준의 영어를 구사하는 일본어 모국어 화자가 영어를 전혀 알지 못하는 일본어 모국어 화자와 비교했을 때, 모국어에서 약간 다른 방식으로 몸짓을 사용한다는 점을 발견했다. 반면, Choi와 Lantolf(2008)의 연구에서는 고급 수준의 제2 언어로 한국어나 영어를 구사하는 화자들이 제1 언어(영어 또는 한국어)에서 제스처를 사용할 때 여전히 제1 언어의 동반 몸짓 패턴을 유지한다는 결과를 발견했다. 따라서, 단일양상 이중언어사용에서는 제2 언어가 제1 언어의 제스처의 사용에 강력한 영향을 미친다는 뚜렷한 증거는 거의 없다.

보려 한다. 한 음성언어에서 다른 음성언어로 외국어학습효과가 전이되는 것이 단일양상(음성 → 음성) 이중언어 습득효과인데 비해 수어의 경우 이중양상(시각 → 음성) 이중언어 습득효과와 연결된다. 본 연구에서는 이중양상 이중언어 습득효과가 사용자가 지각하는 수어의 진정성에 따라 다르게 나타나는지를 검증하려 한다. 본 연구에서 수어의 진정성은 수어가 다른 음성언어와 다른 특성, 수어습득이후 나타난 변화, 수어를 나의 언어로 느끼는 정도 및 수어를 진정한 언어로서 느끼는 정도로 구분하여 측정하였다.

2. 연구

2.1. 연구대상

한국어 음성언어를 모국어로 사용하는, 4년제 대학교의 청인 대학생들(N = 83, 나이: 평균 20.7세, 여자 45명)을 대상으로 실시하였다. 연구 참가자들은 매주 2시간 한국어 수어(n = 40) 또는 독일어 기초수업을 교양과목으로 한 한기 동안 수강한 대학생(n = 43)이었다.

2.2. 도구 및 절차

본 연구의 질문지는 수업에서 집단으로 실시하였다. 질문지는 총 2개의 영역으로 구성되었다. 첫 번째 영역은 수어 습득 이후의 변화에 대한 내용이었다. 이 영역에서는 Casey 등(2012)를 토대로 두 개의 질문을 사용하였다: (1) 기초수어/독일어 과목을 수강한 이후 제스처 사용빈도의 변화(1: 증가, 2: 감소, 3; 변화 없음), (2) ‘증가’라고 응답한 경우 제스처가 어떻게 변화했는지를 설명하기[2]. 또한 추가적으로 수어 과목을 수강한 학생들을 대상으로 기초수어 과목을 수강한 이후 표정 및 제스처가 변화했다고 느낀 정도를 7점 척도에 따라 응답하도록 하였다(1: 전혀 없음, 7: 아주 많이 변화했음). 연구수행자는 참가자들에

2) 기초수어 과목을 수강한 이후 자신의 표정 및 제스처가 변화했다고 응답한 학생들은 ‘원래 대화를 할 때 표정없이 대화하는 경우가 많았는데, 표정이 많이 생기는 것 같은 기분이 든다’, ‘말없는 성격으로 지내지만 비언어적 표현이 풍부해지는 것 같다’, ‘상대방의 표정을 보기 시작하게 되었고, 상대방에 집중하다보니 나 자신도 표정이나 제스처를 사용하게 되는 것 같다’, ‘감정을 예전보다 더 많이 표현하고, 표정으로 더 잘 표현하게 된다’ 등의 의견을 제시하였다.

게 제스처의 정의를 몸짓을 사용하여 의미를 전달하거나 표현을 더 보완하는 것으로 설명하였다.

첫 번째 질문지가 종료된 후, 수어 과목을 수강한 학생들만을 대상으로 한국 수어의 진정성에 대한 인식을 조사하였다. 이 질문지는 선행연구(Najarian, 2008; 박동진, 2012)를 참고하여 개발하였다. 우선 이 질문지에서는 학습자가 인식하는 수어의 진정성을 7점 척도(1: 전혀 그렇지 않다, 4: 보통, 7: 매우 그렇다)에 따라 응답하도록 지시하였다. 학습자는 수어의 진정성을 문법, 소통, 의미 전달, 감정표현 및 '나'라는 정체감형성의 측면에서 평정하였다.

이후 학생들이 생각하는 수어의 진정성에 대한 의견을 분석하고자 총 네 가지의 개방형 질문이 사용되었으며, 참가자의 반응을 수월하게 촉진하기 위해 응답예시를 사용하였다: 첫 번째 질문은 수어가 다른 언어와 비교할 때 어떤 공통점이 있는지에 대한 것이었다. 두 번째 질문은 수어가 다른 언어와 비교할 때 어떤 차별성이 있는지에 관한 것이었다. 세 번째 질문은 수어가 '나의 언어' 또는 '나에게 좋은 언어'라는 느낌을 경험했는지에 대한 것이었다. 네 번째 질문은 수어를 진정한 언어라고 생각한다면 그 이유는 무엇인지에 관한 것이었다. 마지막으로 참가자의 연령, 성별 및 전공에 대한 인적사항을 질문한 후 질문지를 종료하였다.

[표 1] 이중언어 교과목의 유형(단일양상 vs. 이중양상)과 표정/제스처 사용의 변화

언어 유형	증가	감소	변화 없음
이중양상 수어(n=40)	89.6%	0.0%	10.4%
단일양상 독일어(n=43)	6.7%	12.1%	81.2%

2.3. 결과분석 및 논의

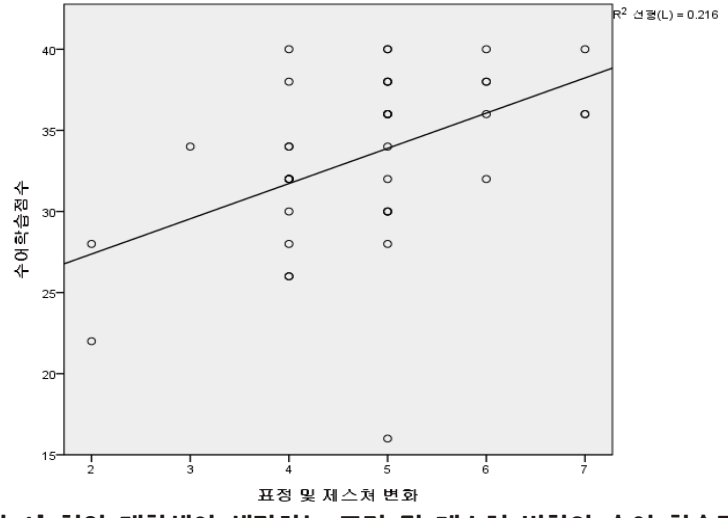
본 연구에서는 대학생들이 제 2외국어(수어, 독일어)를 습득한 이후 나타난 변화를 비교하고자 교차분석을 실시하였다. 또한 수어 과목을 수강한 청인대학생들을 대상으로 수어를 진정한 언어라고 느끼는 이유에 대해 주요어 분석을 수행하였다. 주요어 분석은 최근 많은 연구(서봉언, 이채문, 2014)에서 사용하는 기법으로 텍스트와 같은 비정형데이터에 나타난 주요 단어의 출현빈도를 요약

하여 분석결과를 시각적으로 제시한다. 본 연구에서는 워드클라우드(word cloud) 기법을 활용하여, 주요 단어 및 단어의 중요성을 키워드크기로 제시한다.

2.3.1. 표정 및 제스처의 변화, 수어 진정성의 인식 및 학습성과

표 1과 같이 참가자가 수강한 이중언어 교과목의 유형(이중양상 수어 vs. 단일양상 독일어)에 따라 언어습득의 이득이 달라지는지를 분석하였다. 교차분석을 수행한 결과, 수어 과목을 수강한 이후 음성언어를 사용할 때 제스처의 빈도가 더 많아진다고 응답한 학생이 독일어 과목을 수강한 학생보다 유의하게 더 많았다, ($x2 = 33.07$, $p < .001$). 이것은 수어를 학습한 경험이 학생들의 음성언어 사용시에 시각적 출력에도 영향을 끼치는 것으로 볼 수 있다. 이 결과는 Casey 등(2012)과도 일치한다.

또한 그림 1과 같이 수어습득 이후 표정 및 제스처의 사용변화를 인식한 정도(M = 4.79 SD= 1.02)와 수어학습점수(M = 82.5, SD = 2.31)간에 유의한 정적 상관관계가 나타났다, (r = .46, p = .003). 연구 참가자들이 수어습득이 자신의 제스처에 영향을 끼쳤다고 응답한 학생들일수록 수어학습점수는 높게 나타났다.



[그림 1] 청인 대학생이 생각하는 표정 및 제스처 변화와 수어 학습점수 간의 관계

주목할 것은 학습자가 인식한 수어의 진정성과 수어학습점수 간의 상관관계가 유의하게 나타난 것이다. 표 2와 같이 학습자가 수어가 소통의 측면에서 진정한 언어라고 응답한 점수가 높을수록 학습자의 수어학습점수가 높게 나타났다, ($r = .43$, $p = .007$). 또한 학습자가 수어를 의미전달의 측면에서 진정한 언어라고 생각할수록 수어학습점수가 높게 나타났다, ($r = .42$, $p = .008$). 이와 더불어 감정표현의 수어를 진정한 언어라고 인식할수록 수어학습점수가 높게 나타났다, ($r = .52$, $p = .001$). 수어를 '나'라는 정체성형성의 측면에서 진정성을 높게 인식할수록 수어학습점수가 높게 나타났다, ($r = .40$, $p = .01$). 문법의 측면에서 수어의 진정성을 인식하는 것을 제외하고, 전반적으로 수어의 진정성을 다양한 측면에서 인식할수록 수어학습 성과가 높게 나타났다. 이 결과는 학습자가 수어의 진정성을 인식하는 것이 수어 학습성과와 유의한 관계에 있을 가능성을 보여준다.

[표 2] 학습자가 인식하는 수어의 진정성 측면과 수어학습점수 간의 상관관계

수어 진정성의 측면	M	SD	1	2	3	4	5	6
1. 학습점수	75.05	4.61						
2. 문법	5.45	1.35	.30					
3. 소통	5.87	1.21	.43**	.38*				
4. 의미전달	5.97	1.12	.42**	.47**	.80**			
5. 감정표현	6.32	1.23	.52**	.49**	.57**	.60**		
6. 정체감형성	6.42	1.08	.40*	.29	.58**	.49**	.83**	

* $p < .05$, ** $p < .001$

2.3.2. 수어와 다른 음성언어의 공통점

워드 클라우드 기법을 활용하여 주요어 분석을 수행한 결과, 연구 참가자들은 그림 2와 같이 수어가 다른 음성언어처럼 의미를 표현하고, 타인과 소통하며, 문법체계를 갖추고 있다는 공통점을 가장 많이 언급하였다. 이와 더불어 수어가 다른 언어처럼 국가에 다르며, 지역마다 다른 방언도 존재한다는 응답도 제시되었다.



[그림 2] 청인 대학생이 생각하는 수어와 다른 음성언어의 공통점

2.3.3. 수어와 다른 음성언어의 차별성

연구 참가자들은 그림 3과 같이 수어가 표정과 제스처를 사용하는 시각 언어이기 때문에 상대방의 표정에 더 집중하게 되며, 감정을 더 잘 표현할 수 있다고 응답하였다. 또한 수어는 도상성이 강해서 배우지 않은 사람이라도 어느 정도 이해할 수 있으며, 수어로 소통하면 화자와 청자가 표정을 뚜렷하게 하여 화자의 기분을 더 잘 알 수 있다는 의견이 있었다. 또한 수어는 음성언어와는 달리 조용하고, 따뜻하게 소통할 수 있다는 장점도 언급되었다.



[그림 3] 청인 대학생이 생각하는 수어와 다른 음성언어의 차이점

2.3.4. 수어를 '나의 언어' 또는 '나에게 좋은 언어'로 느낀 경험

청인대학생들은 수어습득을 통해 더 많은 사람들과 소통할 수 있고, 수어사용시에 긍정적 감정을 경험한다는 응답을 하였다. 또한 일부학생들은 농인의 입장에서 생각해볼 수 있다는 것이 자신 스스로를 성장하게 한다고 응답하였다. 평소 목소리가 좋지 않고 발음이 부정확했는데 수어로 소통할 수 있어서 좋았으며, 언젠가 나도 청각장애인이 될 수 있기 때문에 수어가 나에게 필요한 언어라고 생각된다는 응답도 있었다. 또한 몇몇 학생들의 경우 수어연습할 때 경험하는 긍정적 감정(예: 유치원과 초등학교때 수어노래를 연습하던 추억을 회상, 친구들에게 수어를 알려줄 수 있다는 자부심 등)도 언급하였다. 이 결과는 수어습득이 언어의 사용을 넘어서 청인대학생이 자신을 더 잘 이해하고, 성장하며, 사회적 관계속에서 자부심을 느끼는데 영향을 끼치고 있음을 보여준다.



[그림 4] 청인 대학생이 수어를 '나의 언어' 또는 '나에게 좋은 언어'로 느낀 경험

2.3.5. 수어를 진정한 언어로 느끼는 이유

청인대학생들은 그림 5와 같이 수어도 다른 음성 언어와 마찬가지로 진정한 언어이며, 농인과 소통할 때 의미와 감정을 표현하고 전달할 수 있기 때문에 진정한 언어라고 응답하였다. 또한 대화가 힘든 사람들에게 말로 표현하는 것처럼 생생하고 풍부한 대화가 가능하고, 농인들뿐만 아니라 많은 사람들이 수어를 사용하기 때문에 진정한 언어라고 응답하였다.



[그림 5] 청인 대학생이 수어를 진정한 언어로 느끼는 이유

3. 결론 및 시사점

3.1. 결론

본 연구에서는 수어를 습득한 청인대학생이 수어의 진정성을 어떻게 인식하는지를 자기보고식 질문지를 통해 조사하였다. 또한 수어 진정성에 대한 인식과 수어학습효과간의 관계를 분석하였다. 그 결과 청인대학생들이 수어습득이후 자신의 행동적 측면(예: 표정 및 제스처의 변화)에서 변화를 인식하였고, 이 변화를 크게 인식할수록 수어학습점수가 증가하는 경향이 나타났다. 표정 및 제스처의 변화는 정보처리과정에서 표정/제스처의 수준을 넘어서 기억력, 학습능력 및 공간인지(spatial cognition)의 능력이 향상되고 있음을 보여줄 수 있다(Casey 등,

2012). 본 연구 결과가 가지는 잠재적 함의는, 수어습득으로 인해 증가하는 제스처의 사용 빈도가 청인대학생들에게 시공간활용을 통해 정보가 기억에 입력되는 방식에 영향을 끼쳐 인지능력을 향상시킬 가능성이 있다는 것이다.

또한 본 연구에서는 청인대학생들이 수어의 진정성을 다양한 측면(예: 소통, 의미전달, 감정표현, 정체성 형성)에서 인식할수록 수어 학습 성과가 향상되는 경향이 나타났다. 이와 더불어 연구 참가자들은 한 학기동안의 수어학습에서도 수어와 다른 음성언어의 공통점, 수어가 다른 음성언어와 차별화되는 이득, 수어의 진정성 인식에 대한 긍정적 경험을 공통적으로 보고하였다. 청인대학생들은 수어가 다른 음성언어와 같이 의미와 감정을 표현하고 전달할 뿐만 아니라 수어 고유의 특성을 통해 수어사용자에게 풍부한 소통과 긍정정서(예: 즐거움, 자부심, 성장의 느낌 등)를 경험하는 기회를 제공한다는 의견을 제시하였다. 본 연구에서 청인대학생들은 농인들처럼 수어습득을 자신의 정체성확립과 직접적으로 연관시키지는 않았지만, 수어습득이후 자신의 정서 및 행동의 변화를 보고하였다. 청인대학생들은 수어를 진정한 언어로서 느끼는 경험을 주로 자신의 표정 및 제스처의 변화, 과거의 추억이나 수어사용과 연관된 긍정적 정서경험을 언급하여 자기개념을 형성하는 과정과 연관된 응답을 간접적으로 제시하였다. 본 연구결과는 향후 청인 대학생들을 대상으로 실시할 수어교육에서 학습자가 수어의 진정성을 인식하고, 자신의 성장과정과 연결시키기 위해 정서 및 행동과 연관된 주제를 강화할 필요성을 제시했다는데 의의가 있다.

3.2. 시사점과 후속연구에 대한 제언

본 연구에서는 본 연구의 시사점과 후속연구에 대한 제언은 다음과 같다. 첫째, 본 연구에서는 연구 참가자의 수어학습 경험이 충분하지 않고, 제한된 표집크기로 인해 수어의 진정성에 대한 자료가 다양하게 수집되지 못했다는 한계가 있다. 후속연구에서는 수어를 능숙하게 사용하는 청인들을 연구 참가자로 모집하여 수어능숙도에 따라 수어의 진정성에 대한 인식의 차이를 분석해볼 필요가 있다. 또한 본 연구에서는 수어진정성과 학습성과의 관계에 대해 상관분석만을 통해 분석한데 비해, 후속연구에서는 한 한기동안 수어수업의 시간경과에 따라 중간/기말 학습점수가 향상되는 집단과 변화가 거의 없는 집단으로 구분하여 군집분석을 수행해볼 필요가 있다. 둘째, 본 연구에서는 청인 대학생이 전반적으로 수어사용의 긍정적 경험에 대해 보고하였다. 선행연구(정은혜, 2023)에 의하면 언어에 대한 태도는 언어사용환경에 따라 달라져서 농인은 수어를, 청각장

애인은 구어를 다른 언어보다 더 긍정적으로 인식하였다. 후속 연구에서는 청인 대학생이 어떤 사회적 상황에서 수어와 음성언어보다 더 긍정적으로 생각하는지를 더 심층적으로 분석해볼 필요가 있다. 이를 통해 수어사용환경을 최적화하는 것은 수어의 진정성에 대한 청인의 인식을 변화시키는데 중요한 영향을 끼칠 수 있다. 셋째, 본 연구에서는 수어교육환경, 수어사용과 언어 사용자의 관계에 대한 다양한 정보를 제공하지 못했다. 후속연구에서는 양적 및 질적 연구를 통해 청인대학생의 수어사용이 단순한 제스처의 변화가 아니라 언어 사용자의 정체성과 농문화인식에 영향을 끼치는 과정을 더 심층적으로 분석해볼 필요가 있다. 정승희(2015)는 현재 한국 사회의 농인이 청각손실이라는 신체적 장애보다는 청인의 차별 및 청인과의 문화적 차이를 더 큰 문제로 인식하고 있는 것으로 나타났다. 후속연구에서는 수어교육환경, 청인의 수어습득과 수어의 진정성에 대한 인식이 농문화에 대한 긍정적 태도변화에 영향을 끼치는 경로에 대한 정교한 분석이 필요할 것으로 보인다.

철학자 루트비히 비트겐슈타인(Ludwig Wittgenstein)은 ‘언어의 한계는 내 세계의 한계를 의미한다.’고 했다(Freeman & Marian, 2016). 본 연구에서는 제 2 언어로서의 수어습득이 청인대학생들에게 긍정적 영향을 끼칠 가능성을 보여주었다. 청인대학생들은 한 학기 동안 시각언어인 수어습득을 통해 의사소통상황에서 자신의 표정 및 제스처의 향상을 경험하였다. 또한 청인대학생들이 수어를 진정한 언어로서 소통, 의미전달, 감정표현 및 정체성 형성의 측면에서 인식할수록 수어학습효과는 더 증가하였다. 이 결과는 새로운 언어습득이 언어적 확장뿐만 아니라 한 개인의 인지적, 정서적 및 행동적 측면에 영향을 주며, 결국에는 자신의 정체성이라는 세계를 확장시킬 가능성을 보여준다. 후속연구에서는 수어습득의 종단연구를 통해 수어습득이 한 개인의 의사소통양식과 정체성 형성과정에 끼치는 영향을 분석해볼 필요가 있다.

참고문헌

곽정란·정운기·김경진 (2004). 농인의 관점에서 본 농교육의 전환. 「특수교육연구」, 11권, 231~253.

김혜진 (2021). 수화언어와 농정체성에 대한 농인 당사자의 시각. 대구대학교 대학원 박사학위논문.

박동진·최종혁·이준우 (2012). 청각장애 청소년의 농 정체성 형성과정에 관한 현상학적 연구. 「특수교육저널; 이론과 실천」, 13권, 155~183.

박동진·남기현 (2022). 농인의 농정체성이 농문화 인식에 미치는 영향 : 수어인식의 매개효과. 「한국산학기술회 논문지」, 23권, 177~184.

서봉언·이채문 (2014). "키워드 분석을 통해서 본 한국의 디아스포라 연구 동향." 「디아스포라연구」, 8권, 43~69.

정승희 (2015). 농인에 대한 우리나라 성인의 인식연구. 「특수교육재활과학연구」, 54권, 85~103.

정은혜 (2023). 청각장애인의 의사소통 방법 및 수어와 한국어에 관한 인식 탐색. 「한국청각언어장애교육연구」, 14권, 1~23.

Baynton, D. C. (1996). *Forbidden signs: American culture and the campaign against sign language.* Chicago: The University of Chicago Press.

Broaders, S. C., Cook, S. W., Mitchell, Z. A., & Goldin-Meadow, S. (2007). Making children gestures brings out implicit knowledge and leads to learning. *Journal of Experimental Psychology: General, 136*(4), 539-550.

Brown, A. & Gullberg, M. (2008). Bidirectional crosslinguistic influence in L1-L2 encoding of manner in speech and gesture: A study of Japanese speakers of English. *Studies in Second Language Acquisition, 30*(2), 225-251.

Casey, S., Emmorey, K., & Larrabee, H. (2012). The effects of learning American Sign Language on co-speech gesture. *Bilingualism: Language and Cognition, 16*(4), 677-686.

Choi, S. & Lantolf, J. P. (2008). Representation and embodiment of meaning in L2 communication: Motion events in the speech and gesture of advanced L2 Korean and L2 English speakers. *Studies in Second Language Acquisition, 30*(2), 191-224.

Cook, S. W., Yip, T. K., & Goldin-Meadow, S. (2010). Gesturing makes

memories that last. *Journal of Memory and Language, 63*(4), 465-475.

Emmorey, K., Kosslyn, S. M., & Bellugi, U. (1993). Visual imagery and visual spatial language: Enhanced imagery abilities in deaf and hearing ASL signers. *Cognition, 46*(2), 139-181.

Freeman, M. & Marian, V. (2016). Cognitive and emotional effects of bilingualism in adulthood. In Elena Nicoladis & Simona Montanari (Eds.), *Lifespan perspectives on bilingualism*, (pp.285-303). APA and De Gruyter.

Kroll, J. F. (2009). The consequences of bilingualism for the mind and the brain. *Psychological Science in the Public Interest, 10*(3), I-ii.

Lacoste, V., Leimgruber, J., & Breyer, T. (2014). *Authenticity: A view from inside and outside sociolinguistics.* Berlin/München/Boston:De Gruyter.

Marian, V. & Kaushanskaya, M. (2008). Words, feelings, and bilingualism: Cross-linguistic differences in emotionality of autobiographical memories. *The Mental Lexicon, 3*(1), 72-90.

Nachtigall, V., Shaffer, D.W. & Rummel, N. (2024). The authenticity dilemma: Towards a theory on the conditions and effects of authentic learning. *European Journal of Psychology of Education, 39,* 3483-3509.

Najarian, C. G. (2008). Deaf women: Educational experiences and self-identity. *Disability & Society, 23*(2), 117-128.

Pavlenko, A. (2008). Emotion and emotion-laden words in the bilingual lexicon. *Bilingualism: Language and Cognition, 11*(2), 147-164.

Pika, S., Nicoladis, E., & Marentette, P. F. (2006). A cross-cultural study on the use of gestures: Evidence for crosslinguistic transfer? *Bilingualism: Language and Cognition, 9*(3), 319-327.

Tamimi Sa'd, S. H. (2017). Foreign language learning and identity reconstruction: Learners' understanding of the intersections of the self, the other and power. *CEPS Journal, 7*(4), 13-36.

신홍임
(57922) 전라남도 순천시 255 국립순천대학교 기초교육관 416호
전 화: 061)750-3809
이메일: shin7038@scnu.ac.kr

논문접수: 2024년 11월 30일
수정완료: 2024년 12월 11일
게재확정: 2024년 12월 27일

Sign Languages and Linguistics Convergence Research
Vol. 1. No. 2 (2024) pp.199~214

문제 해결 과정의 수어 표현과 인지 기제

임 수 진
(영남대학교)

Lim, Sujin. 2024. The Sign Language Expressions of Problem-Solving and Its Cognitive Mechanisms. ***Sign Languages and Linguistics Convergence Research,*** *1*(2), 199-214. This paper divides the problem-solving process into six main stages: problem identification, information gathering, analysis, comprehension and judgment, solution derivation, and problem resolution. It then conducts an in-depth analysis of the corresponding sign language expressions in Korean Sign Language (KSL). Through this systematic approach, the study aims to elucidate the cognitive mechanisms underlying sign language expressions in the context of problem-solving in KSL and to explain the relationship between the forms of sign language and their abstract meanings. The investigation reveals several key characteristics. First, ontological metaphors, which conceptualize abstract concepts as concrete objects, are most frequently employed in the metaphorical mappings of sign language. Second, the sign language expressions related to problem-solving are predominantly action-based iconic signs. Third, conceptual metonymy and metaphor are the primary cognitive mechanisms for constructing the abstract meanings of these expressions. Additionally, like spoken language, sign language involves complex cognitive processes. These include metonymy, metaphor combined with metonymy, multiple interacting metaphors, multiple metonymies combined with a metaphor, metonymy combined with multiple metaphors, and other intricate combinations.

Key Words: Korean Sign Language, Conceptual Metaphor, Conceptual Metonymy, Iconicity, Cognitive Mechanism

1. 들어가기

수어(sign language)는 농인들의 의사소통을 위해 주로 사용되는 자연 언어이다. 손동작, 몸의 움직임, 얼굴 표정 등을 통해 의미를 전달하는 시각적·공간적 언어이자 음성 언어와 마찬가지로 고유한 문법과 어휘를 가진 하나의 체계화된 언어이다. 본고에서는 이러한 수어가 문제 해결 과정의 추상적 개념을 어떻게 전달하고 이해하는지 인지언어학적 관점에서 수어의 형태와 의미간의 관계를 규명하는 데 그 목적이 있다.

수어에 대한 언어학적 연구는 Stokoe(1960)를 시작으로 본격화되었다. 수어의 기본 단위를 손의 형상(handshape), 위치(location), 운동(movement)으로 나누어 분석하며, 수어가 제스처의 집합이 아닌 음성 언어와 유사한 문법적 구조를 가지고 있는 독립된 언어임을 입증하면서 수어 연구의 초석을 마련하였다. 1980년대에는 수어의 문법적 구조에 관심을 가지고 음성 언어와 비교하는 연구가 주로 이루어졌다(Deuchar 1990; Liddell 1984; Padden 1988). 이후 Emmorey(1996)에서 수어가 뇌의 언어 처리 방식에 미치는 영향을 연구하여 수어 사용자와 비수어 사용자의 인지적 차이를 분석하는 등 수어의 복잡한 언어적 구조와 인지적 측면이 탐구되었다. 수어 사용자들이 은유적 사고를 어떻게 형성하는지, 수어의 도상성과 은유적 측면을 분석하여 의미 구성과 생산에 관련된 인지적 과정을 설명하려는 인지언어학적 관점에서의 수어 연구들이 이어지고 있다(Meir and Cohen 2018; Taub 2001; Wilcox 2000). 국내에서도 수어에 관한 연구들이 이루어졌는데, 2000년대 초반까지는 주로 음운, 형태, 통사적 연구가 주를 이루었다면(김희섭 1996; 윤병천 1997; 남기현 2007), 최근에는 수어의 의미 연구, 특히 은유적 의미 확장을 다룬 연구가 활발히 진행되고 있다. 한국 수어의 형태와 의미 간의 동기화 양상을 고찰한 임지룡·송현주(2015), 신체어를 중심으로 한국 수어와 중국 수어와의 비교·대조한 석수영(2016), 한국 수어의 시간 은유의 양상을 살펴본 최화니(2019), 한국 수어 중 A형 수어의 도상성과 은유적 의미를 분석한 조주연·정유진(2023), 한국 수어 [소화하다]가 은유적으로 의미가 확장된 사례를 분석하고 영어와 한국어를 비교함으로써 은유적 사상을 통한 문화적 차이를 확인한 최영주·양선아(2023), 한국수어에 나타나는 공간도상성이 [사회적 지위는 위]라는 은유를 통하여 추상적 영역까지 확장됨을 발견한 이지연·최영주(2024)가 있다.

본고는 이러한 수어의 의미에 대한 연구의 일환이자 새로운 주제인 문제 해결 과정[1]의 추상적인 어휘 표현과 의미 형성의 인지 기제에 대하여 분석하고자 한다. 이러한 과정에서 주로 은유의 유형에 따라 수어를 분석한 앞선 연구들과는 달리 “어휘”에 따라 어떠한 인지 기제가 작용하여 수어의 의미를 형성하는지 거꾸로 접근함으로써 수어 또한 비교적 간단한 인지적 과정에서부터 환유 또는 은유, 환유와 은유, 은유와 또 다른 은유가 결합된 복합적 인지 과정임을 보여주고자 한다. 2장에서는 본고의 이론적 배경으로서 개념적 은유와 환유, 수어의 도상성과 이중사상을 간략히 소개한다. 3장에서는 문제 해결 과정의 수어 표현과 의미형성의 인지 기제를 면밀히 분석하여 수어와 의미 간의 관계를 규명하고자 한다. 4장에서는 3장에서의 분석을 바탕으로 문제 해결 과정에서 보여지는 수어 표현들의 특징을 논의한다. 마지막으로 5장에서는 이 논문을 요약하며 마무리한다.

2. 이론적 배경

2.1 개념적 은유와 환유

개념적 은유(conceptual metaphor)는 우리의 일상적 사고와 행위 전반에 관여하는 인간의 가장 근본적인 인지 기제 중 하나이다 (Barcelona 2000; Kovecses 2002; Lakoff and Johnson 1980/2003; Lakoff and Turner 1989; Ungerer and Schmid 1996). 개념적 은유는 궁극적으로 이해하고자 하는 목표영역(target domain)과 보다 구체적이며 경험에 기반한 근원영역(source doamin)으로 구성되며, 두 영역 간의 상호 연관성과 유사성에 기초한 체계적 사상(mapping)으로 목표 영역의 추상적 개념이 근원 영역의 구체적 개념을 통해 쉽게 이해된다. (Fauconnier 1997; Gibbs 1994; Kovecses 2002; Knowles and Moon 2006; Lakoff and Johnson 1980/2003).

또 다른 주요한 인지 기제인 개념적 환유(conceptual metonymy)는 동일한 개념적 영역에서 인접성(contiguity)에 기초하여 우리가 이해하고자 하는 목표 개념에 그와 관련된 속성을 지닌 근원 개념이 정신적 접근을 제공하는 인지 과정이다. 따라서 개념적 환유는 하나의 영역 내에서 한 개념이 다른 한 개념을 지

1) 본고에서 ‘문제 해결 과정’은 문제 파악, 정보 수집, 분석, 이해 및 판단, 정답 도출, 문제 해결이라는 6가지 단계의 사고 과정을 의미한다.

시하거나 대표하는 방식이다(Panther and Thornburg 2007: 242).[2)]

2.2 수어의 도상성과 이중사상

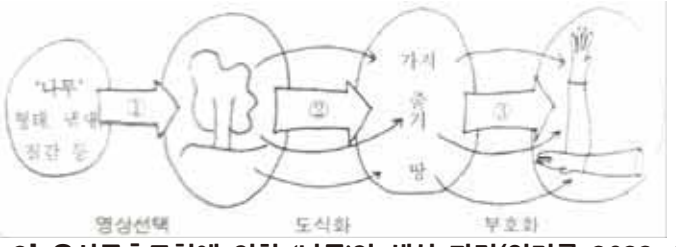
도상성(iconicity)이란 언어의 구조(형식과 형태)와 의미(내용)간의 유사성을 말하는 것으로 언어의 중요한 특징 중 하나이다. 음성 언어에서는 "쨍그랑"처럼 실제 소리를 모방한 의성어나 "흔들흔들"과 같이 동작을 시각적으로 묘사한 의태어가 여기에 해당한다. 수어의 예로서는 안경, 나비 등을 들 수 있는데, 한국 수어의 '안경'은 안경의 형태와 매우 유사하고, '나비'는 나비가 날개짓하는 모습과 매우 닮아있다는 점에서 수어의 형태와 의미가 도상적임을 알 수 있다. 이러한 도상성은 정보를 시각과 공간의 양식으로 구성하는 수어의 형성 과정에서 필수적 요소이다(Willcox 2007).



[그림 1] 한국 수어 '안경', '나비'

Taub(2001: 44)는 도상성이 수어의 어휘 형성에 관여하는 과정을 유사구축모형(analogue-building model)으로 설명하였는데, 수어의 어휘는 크게 다음과 같은 세 단계를 거쳐 형성된다고 하였다: 영상 선택(image selection), 도식화(schematization), 부호화(encoding).

2) 환유적 관계의 일반적 표기는 다음과 같다: X STANDS FOR Y 혹은 약식 X FOR Y (Panther and Radden 1999: 18-19). Langacker(1993: 30)는 이 개념적 환유를 참조점 현상(a reference point phenomenon)으로 설명하고 있는데, 여기서 '참조점'이란 우리가 이해하고자 하는 개념적 실체에 정신적 접근을 제공하는, 지각상 현저히 나타나는 개념적 실체를 뜻한다.



[그림 2] 유사구축모형에 의한 '나무'의 생성 과정(임지룡 2022: 743 재인용)

나무와 같이 세상에 존재하는 하나의 구체적 사물로서 유사구축모형에 따라 도상적 사상만으로 의미가 형성되는 경우 외에, 추상적 개념은 도상성을 기반으로 부호화하되 이중 사상을 거쳐 수어로 표현된다(Taub, 2001: 103). 여기서 이중 사상(dounble mapping)이란 도상성이 은유의 근원영역에 사상되는 도상적 사상이 먼저 일어나고, 다시 그 근원영역이 목표영역에 사상되는 은유적 사상이 일어남을 의미한다. Taub(2001)는 수어 [이해시키다(THINK-PENETRATE)]를 예시로 이중 사상을 다음 [표 1]과 같이 설명하고 있는데, 수어소는 근원 영역의 요소들과 대응하고 이는 다시 목표영역의 요소들과 대응하면서 수어소의 형태가 목표영역의 추상적 의미를 나타낼 수 있게 된다.

[표 1] 미국 수어 [이해시키다]의 이중 사상(Taub 2001: 103)

도상적 사상	은유적 사상	
수어소	근원영역	목표영역
I형 우세손	물건	생각
이마	머리	마음: 생각의 장소
I형 우세손이 이마에 댐	머릿속에 있는 물건	이해된 생각
I형 우세손이 수신자 쪽으로 이동	사람에게 물건을 보냄	사람에게 생각을 전달
B형 손	장애물	의사소통의 어려움
I형 우세손이 B형 손가락 사이를 뚫음	장애물을 뚫음	어려움에도 불구 의사소통에 성공함
농인의 위치	보내는 사람	생각의 소유자
수신자의 위치	받는 사람	생각을 알고자 하는 사람

3. 문제 해결 과정의 수어 표현과 인지 기제

이 장에서는 문제 해결 과정의 추상적 어휘들을 수어에서는 어떻게 표현하는지 살펴보고, 수어의 형태와 의미간의 관계를 규명하기 위한 인지 기제를 분석하고자 한다. 본고에서 문제 해결 과정을 다음과 같이 크게 6가지 단계로 설정하고 각 단계별로 살펴보고자 한다: 문제 파악, 정보 수집, 분석, 이해 및 판단, 정답 도출, 문제 해결.[3)]

3.1 문제 파악



[그림 3] 문제 파악[4)]

[그림 3]에서 '문제'는 위로 향하게 편 왼손바닥에 1·2·5지를 편 오른 주먹의 5지 등을 대고 안으로 당기며 1·2·5지 끝을 맞댄다. '파악'은 오른 주먹의 1지를 펴서 바닥으로 코 왼쪽을 오른쪽으로 스쳐 내고, 5지를 펴서 바닥으로 코 오른쪽을 왼쪽으로 스쳐 낸 다음, 오른손을 펴서 손바닥은 왼쪽을 보도록 하고 손끝이 밖으로 향하게 하여, 위쪽으로 편 왼 손바닥 위로 이동시키며 주먹을 쥔다.

수어 '문제'는 책 여기저기서 문제를 발췌하는 동작을 모방하여 나타낸 도상적 수어이다. 종이에 실려있는 물리적 개체로서의 문제를 동작에 기반하여 표현하고 있지만 이것은 일반적이고 추상적인 문제를 나타낸다.[5)] 이렇게 의미가

3) Schank and Abelson(1977)은 우리가 일상을 이해하는 기초 구성 단위로 스크립트(script)라는 개념을 사용한다. 반복되는 일상에서 발생하는 주요 사건들을 단계별로 구체화한 것인데, 문제 해결 스크립트에는 '문제 직면, 문제 해결 노력, 문제해결'이라는 3단계로 문제해결과정을 제시한 바 있다. (조영순 2022:108 재인용)

4) 본고의 수어 그림은 모두 한국수어사전(https://sldict.korean.go.kr)을 참조하였다.

확장될 수 있는 것은 구체적인 하나의 문제가 문제 상황 전체를 대표하는 개념적 환유([부분은 전체])가 작동되었기 때문이다.

‘파악’은 콧방귀를 양쪽으로 뀌는 동작을 모방한 수형으로 시작되는데, 콧방귀라는 하나의 동작이 그 동작을 하는 전체 상황(개념적 환유[부분은 전체]), 즉 콧방귀를 뀔 정도로 쉽게 할 수 있음을 의미한다. 콧방귀를 뀔 정도로 쉽게 할 수 있는 대상으로서 수어 ‘잡아채다’가 결합되는데, 수어자 앞 공간의 보이지 않는 추상적 존재를 잡을 수 있는 물건으로 개념화하고(존재론적 은유 [문제는 물건]), 이를 수어자의 공간 밖에서 안으로 가져와 잡음으로써 추상적 개념인 ‘문제’의 존재가 확립된 동시에 상태의 변화를 공간상의 위치로 이해하여(구조적 은유[상태는 위치]) 밖에 있던 물건을 손안으로 들이면서 문제에 대한 무지 상태에서 파악의 상태로 변화됨을 보여준다. 수어 ‘문제 파악’의 인지 기제를 정리하면 다음과 같다.

[표 2] 수어 ‘문제 파악’의 인지 기제

수어		인지 기제	의미
문제		개념적 환유 [부분-전체]	구체적 문제 → 추상적 문제
파악	콧방귀	개념적 환유 [부분-전체]	쉽다
	잡아채다	존재론적 은유 [문제는 물건]	물건을 잡다
		구조적 은유 [상태는 위치]	문제를 파악하다

3.2 정보 수집



[그림 4] 정보 수집

5) 수어 ‘문제지(문제+종이)’와 ‘문제아(문제+아동)’를 살펴보면 물리적 문제와 추상적 문제를 나타내는 수형이 [그림 3]의 문제와 동일하다.

[그림 4]에서 ‘정보’는 오른 주먹의 1지를 펴서 반쯤 구부려 끝이 오른쪽 귀로 향하게 하여 좌우로 두 번 움직인 다음, 세운 왼 주먹의 5지 등에 오른 주먹의 1·2지를 위로 향하게 펴서 대고 왼쪽에서 오른쪽으로 움직인다. ‘수집’은 왼 손바닥을 위로 향하게 편 다음 오른손 등을 위로 향하여 손가락을 끌어들이며 주먹을 쥐는 동작을 두 번 반복한다.

수어 ‘정보’는 듣고 보는 행위에 기반한 도상적 수어이다. 정보를 지각하는 행위로서 듣고 보는 것은 가장 기본적이고도 지각 행위의 특징적인 한 부분이다. 듣는 행위를 표현하기 위해 ‘귀’라는 신체 부위가 소리를 인지하는 수단으로서 듣는 기능을 대표하는(개념적 환유[수단-기능]) 동시에 실체가 없는 추상적 정보를 손가락으로 귀에 들어가는 동작을 함으로써 실체가 있는 것으로 인식한다(존재론적 은유[정보는 물체]). 이어서 보는 행위는 대상을 좇아 시선이 따라 움직이는 동작으로 오른 주먹의 1·2지는 사람의 두 눈을 의미하는데 신체 일부인 손가락이 또 다른 신체의 일부인 눈을 대신하여 표현한 것이다(개념적 환유[부분-부분]). 보는 행위 또한 추상적 정보가 형체를 가진 개체로 인식하기 때문에 가능한 것이며, 이러한 개념화는 손으로 긁어모으는 동작을 모방한 수어 ‘수집’에서도 마찬가지이다(존재론적 은유[정보는 물체]). 긁어모으는 동작은 이 행위의 궁극적인 목적 또는 결과에 해당하는 수집의 행위를 나타내므로 개념적 환유에 기반한 도상적 수어라 할 수 있다.

[표 3] 수어 ‘정보 수집’의 인지 기제

<table>
<tr><th colspan="2">수어</th><th colspan="2">인지 기제</th><th>의미</th></tr>
<tr><td rowspan="2">정보</td><td>듣는 행위</td><td>개념적 환유
[수단-기능]</td><td rowspan="2">존재론적
은유
[정보는 물체]</td><td>귀 → 듣다</td></tr>
<tr><td>보는 행위</td><td>개념적 환유
[부분-부분]</td><td>두 손가락
→ 두 눈
→ 보다</td></tr>
<tr><td>수집</td><td>긁어모으다</td><td colspan="2">존재론적 은유 [정보는 물체]
개념적 환유 [행동-결과]</td><td>정보를 수집하다</td></tr>
</table>

3.3 분석



[그림 5] 분석

[그림 5]에서 '분석'은 두 주먹의 1지를 펴서 'X'자로 맞댔다가 양옆으로 벌리는 동작을 두 번 반복한다.

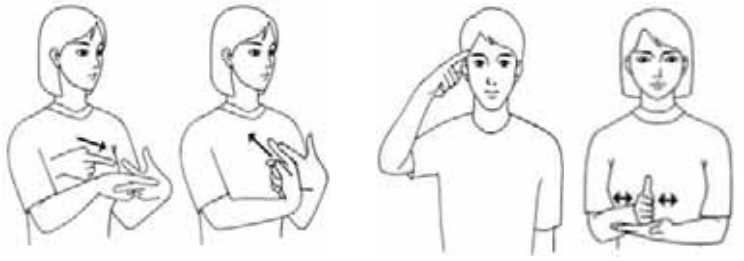
[그림 5]에서 수어 '분석'은 갈라 헤치는 동작으로 물리적인 개체를 분해하여 살피는 동작이다. 분석이란 복잡한 현상이나 개념을, 그것을 구성하는 단순한 요소로 분해하는 것으로[6], 수어 '분석'은 의미의 한 부분이자 분석에 대해 가장 현저하게 지각되는 과정인 '분해' 과정을 선택하여 물건을 갈라 헤치는 동작으로 나타낸 것이다. 이러한 수어의 형태는 부분이 전체를 대표하는 개념적 환유에 기반하고 있으며, 이렇게 선택된 수형이 '분석'의 의미로 이해될 수 있는 것은 추상적 개념의 분석을 물건의 해체 과정으로 이해하기 때문이다(구조적 은유[분석은 해체]). 즉 본고에서 추상적 개념을 문제로 보았을 때, 추상적 문제를 하나의 구체적 물건으로 보고, 문제의 구성요소를 물건의 개별 부품으로, 문제의 분석을 물건의 분해로 인식함으로써 문제 해결 과정에서 수어 '분석'은 문제의 구성요소를 분리하여, 각 요소를 독립적으로 검토하고 이를 통해 전체를 파악하는 과정으로 이해될 수 있다.

[표 4] 수어 '분석'의 인지 기제

수어		인지 기제	의미
분석	갈라헤치다	개념적 환유 [부분-전체] 존재론적 은유 [문제는 물건] 구조적 은유 [분석은 해체]	복잡한 개념을 단순한 요소로 분해하는 일

6) 분석의 의미는 표준국어대사전 참조.

3.4 이해 및 판단



[그림 6] 이해 및 판단

[그림 6]에서 '이해'는 왼 주먹의 1·2지를 펴서 끝이 오른쪽으로 등이 밖으로 향하게 벌린 다음, 그 사이로 오른 주먹의 1지를 펴서 끝을 안에서 밖으로 내밀었다가 다시 밖에서 안으로 밀어 넣는다. '판단'은 오른 주먹의 1지를 펴서 오른쪽 관자놀이에 댄 다음, 위로 향하게 편 왼 손바닥에, 손끝이 밖으로 향하게 모로 세운 오른손을 대고 좌우로 스쳐 낸다.

수어 '이해'는 꿰뚫는 동작에 기반한 도상적 수어이다. 왼손 1·2지 사이에 오른손 1지를 밖으로 끼웠다 다시 안으로 끼우는데, 오른손 1지는 물건을 뜻하며, 밖으로 끼우는 것은 장벽을 통과하는 것을 의미하고 화자는 장벽을 통과하여 나간 물건을 다시 화자에게 돌려보낸다. 이러한 도상적 사상은 은유적 사상으로 연결되는데 즉, 추상적 개념인 정보를 물건으로 개념화하여(존재론적 은유[정보는 물건]) 이를 가로막는 장벽을 뚫고 나감으로써 어려움을 극복하고 성공적으로 알게 됨을 의미한다(구조적 은유[어려움은 장벽]). 이를 다시 화자에게 이동시키는 것은 알게 된 정보를 받아들임으로써(구조적 은유[이해는 소유]), 수어 '이해'가 깨닫고 알게 된 것을 완전히 자신의 것으로 만드는 과정을 시각적으로 표현한 것임을 알 수 있다.

수어 '판단'은 머리를 자극하는 동작을 모방한 수형으로 시작되는데, 머리는 생각이 이루어지는 장소이므로 장소가 기능을 대표하는 개념적 환유에 의해 머리를 자극하는 동작은 곧 생각하는 행위를 나타낸다. 이러한 '생각'은 갈라 나누는 동작에 기반한 도상적 수어 '구분'과 결합하여 화자는 추상적 개념인 생각을 나눌 수 있는 물리적 개체로 인식하고(존재론적 은유[생각은 물체]), 이러한 물리적 개체를 논리나 기준에 따라 구분하여 판단의 의미를 가지게 된다.

[표 5] 수어 '이해 및 판단'의 인지 기제

수어		인지 기제	의미
이해	꿰뚫다	존재론적 은유[정보는 물건]	
		구조적 은유[장애는 장벽]	깨닫고 알게 됨
		구조적 은유[이해는 소유]	받아들임
판단	머리를 자극하다	개념적 환유[장소-기능]	생각
	나누다	존재론적 은유[생각은 물체]	구분, 구별하다

3.5 정답 도출



[그림 7] 정답 도출

[그림 7]에서 '정답'은 손바닥이 왼쪽으로 향하게 세운 오른손의 1지 옆면을 턱 중앙에 댄 다음, 오므린 오른손을 얼굴 쪽으로 당기며 손을 편다. '도출'은 손바닥이 위로 향하게 편 왼 손바닥에 모로 세워 대고 밖으로 내민다.

수어 '정답'은 곧은 것의 형태를 모방한 외형 기반 도상성과 상대방의 말을 받는 동작을 모방한 동작 기반 도상성을 결합한 수어이다. 곧음이 물리적 세계에서 바르게 정렬된 상태, 안정성을 주는 형태이자 명확한 경로라는 속성을 통하여 올바른 상태이자 편향되거나 왜곡되지 않은 상태, 오류 없는 명확성을 나타낸다. 이는 논리적 또는 도덕적 올바름을 형태적 곧음과 공간상의 직선성을 연결해 이해하려는 방식(구조적 은유[옳음은 곧은 것])에 기초한다. 상대방의 말을 받는 동작은 상대방이 답을 하는 경우, 보이지 않는 답변을 잡을 수 있는 물건으로 개념화하고(존재론적 은유[답변은 물건]) 화자가 오른손으로 잡아 이를 자신의 얼굴 쪽으로 가져가 던짐으로써 화자 본인에게 상대방의 답을 보내는

동시에 받는 것을 의미한다. 수어 '도출'은 손에 얹어 올려내는 동작에 기반한 도상적 수어이다. '정답 도출'에서는 추상적 개념인 정답을 물건으로 개념화한 후, 이를 손에 얹어 밖으로 내미는데 화자의 몸 안쪽에서 바깥쪽으로 내보냄으로써 정답이 도출되었음을 의미한다. 이는 상태를 안과 밖의 공간적 방향으로 이해한 것인데, 잠재적 또는 미결정된 상태는 내부로, 확정되거나 실현되는 상태는 외부로 개념화하여 수어 '도출'은 이러한 방향성을 통해 정답이 내부의 잠재적 상태에서 외부로 나와 실현되는 상태로 전환되었음을 의미한다(방향적 은유[잠재성은 안, 실현성은 밖]).

[표 6] 수어 '정답 도출'의 인지 기제

수어		인지 기제	의미
정답	곧음	구조적 은유 [옳은 것은 곧은 것]	옳은 답
	말을 받다	존재론적 은유 [답변은 물건]	
도출	손에 얹어 밖으로 내밀다	존재론적 은유 [정답은 물건]	
		방향적 은유 [잠재성은 안, 실현성은 밖]	확정되고 실현됨

3.6 (문제) 해결



[그림 8] 해결

[그림 8]에서 '해결'은 손바닥이 아래로 향하게 편 두 손바닥을 'X'자로 포갰다가 양옆으로 벌린다.

수어 '해결'은 얽힌 손을 풀어 버리는 동작에 기반한 수어인데, 손은 매듭을 나타내고, 이것은 다시 '문제'를 의미하게 된다. 손을 X자로 포개놓은 것은 실

이 엉키거나 꼬인 상태를 나타내고, 이는 문제가 복잡하게 얽혀 있음을 의미한다. 이렇게 엉키거나 꼬인 실(매듭)을 풀어내는 것을 문제가 해결되는 것으로 보는데, 이러한 은유적 사상은 먼저 추상적 문제를 매듭으로 개념화하고(존재론적 은유[문제는 매듭]), 이어 문제 해결 과정을 매듭을 푸는 과정(구조적 은유[문제 해결은 매듭 풀기])으로 이해하는데 기초한다.

[표 7] 수어 '해결'의 인지 기제

수어		인지 기제	의미
해결	얽힌 손을 풀다	존재론적 은유 [문제는 매듭] 구조적 은유 [문제 해결은 매듭 풀기]	복잡한 문제를 잘 처리함

4. 문제 해결 과정의 수어 표현의 특징

지금까지 본고에서는 인지언어학적 관점에서 문제 해결 과정의 수어 표현들과 의미간의 관계를 규명하고자 면밀히 분석하였다. 이러한 분석에서 발견된 문제 해결 과정의 수어 표현들의 특징을 요약 정리하면 다음과 같다.

첫째, 문제 해결 과정의 수어 표현들을 살펴보면, 수어의 형태와 의미를 동기화시키는 인지적 과정에서 대부분 추상적 개념을 하나의 구체적 '물건'으로 개념화한다. 즉, 문제 파악, 정보 수집, 이해 및 판단, 정답 도출, 문제 해결의 각 단계에서 문제, 정보, 생각, 정답 등은 추상적 개념으로 존재론적 은유에 의해서 모두 [물건]으로 개념화되며 이러한 존재론적 은유가 수어의 은유적 사상에서 매우 빈번히 발견되는 인지 기제임을 알 수 있다.

둘째, 도상성은 수어의 형성 과정에서 핵심적 요소이며 대개 수어는 외형 기반 도상적 수어와 동작 기반 도상적 수어로 구분할 수 있는데, 문제 해결 과정의 수어 표현들은 거의 '동작 기반' 도상적 수어이다. 그 이유는 문제 해결 과정의 수어 표현들이 추상적 어휘로서 물리적 지시물(referent)이 대부분 존재하지 않으므로 형태를 모방할 수 없고, 따라서 추상적 어휘를 표현하기 위해서는 그와 관련된 '동작'을 선택하여 그 동작의 가장 현저하게 지각되는 부분을 수어의 형태로 결정하기 때문이다. 이러한 관점에서 문제 해결 과정의 추상적 어휘들은 이와 관련된 다양한 동작들 중 수어 사용자가 어떠한 동작을 선택하고 이들 동작 중 어떤 부분을 가장 주요한 부분으로 인식하는지에 따라 수어의 형태

가 결정되므로, 수어 사용자의 특별한 사회적 · 문화적 경험이 매우 중요할 것으로 사료된다.

셋째, 문제 해결 과정의 수어 표현들은 도상적 사상에서 은유적 사상을 거쳐 추상적 어휘의 은유적 의미가 완성되는데, 이때 도상적 사상과 은유적 사상에서 개념적 환유와 개념적 은유가 가장 주요한 인지 기제임을 확인할 수 있다. 특히, 문제 해결 과정의 추상적인 수어 표현들은 비교적 간단한 인지 과정에서부터 여러 유형의 복합적 인지 과정을 거쳐 은유적 의미로 확장됨을 알 수 있다. 즉, 환유(문제), 은유와 환유(수집), 환유와 은유(판단), 은유와 또 다른 은유(정답, 도출, 해결), 다중 환유와 은유(정보), 환유와 다중 은유(파악)의 결합의 형태로 수어도 음성언어와 마찬가지로 복합적인 인지 기제의 작용을 통해 추상적이고 복잡한 개념을 표현하고 이해할 수 있다.

5. 결론

본고에서는 문제 해결 과정을 '문제 파악, 정보 수집, 분석, 이해 및 판단, 정답 도출, 문제 해결'과 같이 설정하고, 수어에서 이러한 추상적 어휘들이 어떠한 인지적 과정을 통하여 수어의 형태와 의미를 형성하는지 자세히 분석하였다. 이러한 분석에서 문제 해결 과정의 수어 표현들은 대부분 '동작 기반' 도상적 수어로서, 추상적 개념을 하나의 구체적 '물건'으로 개념화하는 존재론적 은유가 수어의 은유적 사상에서 매우 빈번히 발생됨을 알 수 있었다. 또한 개념적 환유와 개념적 은유가 수어의 추상적 어휘를 구축하는 주요한 인지 기제이며, 수어도 음성언어와 마찬가지로 비교적 간단한 인지적 과정에서부터 여러 유형의 복합적 인지과정을 거쳐 추상적 의미가 완성됨을 알 수 있었다.

참고문헌

김희섭 (1996). 한국 표준 수화의 자연언어성 고찰: 음운론을 중심으로.「언어과학」, 3권, 25~42.

남기현 (2007). 한국 수화의 수화 공간의 통사적 기능에 대한 연구.「특수교육저널: 이론과 실천」, 8권 3호, 45~68.

석수영 (2016). 수어의 구조와 의미 간의 상관성 고찰: 한중 신체어를 중심으로. 「언어과학연구」, 76권, 151~173.

윤병천 (1997). 한국 수화의 조어법. 「한국수어학회 연수회」, 1권, 12~20.

이지연·최영주 (2024). 한국수어에 나타나는 공간도상성의 은유적 확장. 「언어」, 49권 1호, 153~172.

임지룡 (2022). 수어의 비유적 도상성. 「한글」, 83권 3호, 733~772.

임지룡·송현주 (2015). 한국수어의 동기화 양상, 「한국어 의미학」, 49권, 59~85.

조주연·정유진 (2023). A형 수어의 도상성과 은유, 「Journal of Korean Culture」, 60권, 101~126.

최영주·양선아 (2023). 은유적 부각의 측면에 나타나는 문화적 상대성: 한국수어 [소화하다]의 은유적 의미 확장을 중심으로. 「언어」, 48권 4호, 971~989.

최화니 (2019). 한국수어의 시간 은유에 대하여 – 한국어와의 비교를 중심으로. 「열린정신 인문학 연구」, 20권 1호, 145~188.

Barcelona, A. (2000). *Metaphor and metonymy at the crossroads: A cognitive perspective*. Berlin/New York: Mouton de Gruyter.

Deuchar, M. (1990). *Sign language: The study of deaf people and their language*. Cambridge: Cambridge University Press.

Emmorey, K. (1996). *The confluence of space and language in signed languages*. Hillsdale, NJ: Lawrence Erlbaum Associates.

Fauconnier, G. (1997). *Mappings and thought and language*. Cambridge: Cambridge University Press.

Gibbs, R. (1994). *The poetics of mind: Figurative thought, language, and understanding*. Cambridge: Cambridge University Press.

Knowles, M. & Moon, R. (2006). *Introducing metaphor*. London: Routledge.

Kovecses, Z. (2010). *Metaphor: A practical introduction* (2nd ed.). New York: Oxford University Press.

Lakoff, G. & Johnson, M. (2003). *Metaphor we live by*. Chicago: The University of Chicago Press.

Lakoff, G. & Turner, M. (1989). *More than cool reason: A field guide to poetic metaphor*. Chicago: University of Chicago Press.

Liddell, S. K. (1984). *Thinking and signing: A study of American Sign Language*. Dordrecht: Springer.

Meir, I. & Cohen, A. (2018). *Grammaticalization in the visual modality: American Sign Language and Israeli Sign Language.* Oxford: Oxford University Press.

Padden, C. (1988). *Interaction of morphology and syntax in American Sign Language.* New York: Garland Publishing.

Panther, K.-U. & Thornburg, L. L. (2007). Metonymy. In Dirk Geeraerts & Hubert Cuyckens (Eds.), *The Oxford handbook of cognitive linguistics,* (pp. 236-263). Oxford University Press.

Stokoe, W. (1960) *Sign language structure: An outline of the visual communication systems of the American deaf.* Maryland: Linstok Press.

Taub, S. F. (2001). *Language from the body: Iconicity and metaphor in American Sign Language.* New York: Cambridge University Press.

Ungerer, F. & Schmid, H.-J. (2006). *An introduction to cognitive linguistics* (2nd edition.). London: Longman.

Wilcox, S. (2000). *Metaphor in American Sign Language.* Washington, DC: Gallaudet University Press.

임수진
38541 경상북도 경산시 대학로 280
영남대학교 천마학부대학 교양학부 부교수
전 화: (053) 810-7827
이메일: parler-moi@hanmail.net

논문접수: 2024년 11월 30일
수정완료: 2024년 12월 18일
게재확정: 2024년 12월 27일

Sign Languages and Linguistics Convergence Research
Vol. 1. No. 2 (2024) pp.215~260

북한『손말사전』의 성격과 특성

임 지 룡
(경북대학교)

Lim, Jiryong. 2024. The Character and Characteristics of the North Korean Sign Language Dictionaries. ***Sign Languages and Linguistics Convergence Research,*** *1*(2), 215-260. This paper, in its exploration of the character and characteristics of North Korean sign language dictionaries, identifies five such texts currently in existence: ⓐSign Language Dictionary(2005, 2,395 items); ⓑSign Language Learning(2005, 535 items); ⓒChosun Sign Language Cards(2009, 106 items); ⓓ Sign Language Dictionary(2019, 4,018 items); and ⓔKorean Sign Language & Choseon Sign Language Dictionary(2021, 497 items). These dictionaries reveal various semantic relations between the headwords, which differ not only in initial sound laws and notations but also exhibit non-standard forms, many unique to North Korea. The positive attributes of the dictionaries include connectivity, accessibility, and reader-friendliness. However, several issues are noted, including inconsistencies between indicators and contexts, the readability of manual expressions, insufficient information, and an overemphasis on the spoken-language perspective, among other concerns. Additionally, the rate of correspondence between South Korean and North Korean sign language found in ⓔ varies significantly: 90 of the 497 basic lexical items (18.11%) used in daily life correspond completely; 59 items (11.87%) correspond partially; and 348 items (70.02%) show no correspondence at all. In conclusion, this study finds that the discrepancies between South Korean and North Korean lexical items are greater than anticipated. Therefore, the compilation of a Great Sign Language Dictionary of Korea, designed to benefit users in both regions, is highly recommended.

Key Words: North Korean Sign Language Dictionaries, Sign Languages, Heading Words, Semantic Relations, Rate of Correspondence, The Positive Aspects and Problems of North Korean Sign Language Dictionaries

1. 들머리

이 글은 북한의 주요 손말사전을 대상으로 그 성격을 검토하고 특성을 살펴보는 데 목적이 있다. 논의의 대상은 안태성 외(2005)『손말사전(롱아학교용)』, 김은희(2005)『손말학습(참고자료)』, 주수양 외(2009)『조선손말(카드)』, 로경수 외(2019)『손말사전(부문별손말)』, 그리고 박금순(2021)『한국수어 & 조선손말』이다.

북한의 손말은 텍스트 자체에 대한 접근이 쉽지 않기 때문에, 근원적으로 그 내용에 대한 이해가 어려운 형편이다. 이 점을 고려해 볼 때 다음 논의들은 주목할 만하다. 김태수(2008)는『한국수화사전(2005)』과『손말사전(롱아학교용)(2005)』을 중심으로 두 사전에서 같은 표제어 1,660개의 어휘를 대상으로 수형·수동·수위·수향을 비교 분석한 결과 일치하는 어휘가 231개(13%)임을 밝혔다. 윤병천 외(2016)는 조선손말 2,463개의 형태론적 분석을 하였는데, 조선손말의 분야는 21가지이며 그중 정치 분야의 올림말이 가장 많고, 9개 품사 중 명사가 가장 많았으며, 손말의 형태소는 4가지이며 하나의 형태소로 된 표제어가 78%였다. 또한, 양손 수어가 한 손 수어보다 2배 이상이며, 조선손말 단일어의 조어 유형은 5가지이고 복합어는 특정한 규칙 없이 자유롭게 결합하여 조어되었음을 밝히고 있다. 이난희 외(2017)는 북한수어 2,391개의 수형을 분석하였는데, 수형은 70개이고 변이형 21개가 발견되었으며 그중 남북한 공통 수형은 58개, 북한에서만 출현하는 수형은 12개로 나타났다. 우세손과 비우세손의 고저 빈도를 밝혔으며, 의미가 일치하거나 유사한 단어의 수형 일치도는 양손 모두 일치 15%, 우세손 일치 21%, 비우세손 일치 23%, 불일치 71%로 나타났다. 최상배 외(2019)는 음운과 단어 수준에서 남북한 수어의 대조 분석을 시도하였는데, 남북한 수어에서 같은 의미를 같은 수어로 표현한 경우는 29%, 수어소가 부분 일치하는 경우는 37%, 수어소를 다르게 표현하는 경우는 34%로 나타났으며, 남북한 수어의 수어소 출현 빈도에서 수형에는 다소 차이가 있었으나 수위·수동·수향의 출현 순위는 상당히 유사하였으며, 남북한 수어의 합성어 구성은 북한 수어가 한국 수어보다 동시적 결합 구조가 많았으며 동형동의 수어가 33%, 동형이의 수어가 13%로 나타났다. 최상배 외(2022)는 한국·북한·일본 수어 401개를 대상으로 대조언어학적 관점에서 이들을 분석하였는데, 한국·북한 수어의 일치도는 완전 일치 122개(30%), 부분 일치 144개(36%), 완전 불일치 135개(34%)로 기술한 바 있다.

북한의 손말사전에 대한 이해는 다음과 같은 측면에서 큰 의의를 갖는다. 첫째, 독자적인 언어로서 북한 손말의 성격과 특성을 밝히는 기초가 되며, 한국

의 수어사전을 돌아보는 계기가 된다. 둘째, 79년이라는 남북분단의 긴 세월 동안 남북한 수어와 손말 간에 동질성뿐만 아니라 이질성을 파악함으로써 상호 이해를 높이고 그 간극을 좁히는 계기가 된다. 셋째, 남북한 농인 및 청인들의 수어-손말 대조 교육을 통해 원활한 의사소통의 계기가 마련된다. 넷째, 음성언어의 경우 『겨레말큰사전』을 통해 남북한 언어의 하나 됨을 지향하려 하듯이, 『겨레수어·손말큰사전』 편찬의 계기가 된다.

요컨대 이러한 논의는 일차적으로 북한의 손말사전을 제대로 이해하고 해석하며, 나아가 남북한 수어와 손말의 실상을 파악하는 데 그 의의가 있다고 하겠다. 이 점에 초점을 맞추어 이제까지 한자리에서 논의된 바 없는 북한 손말사전들을 중심으로 그 성격과 특성을 논의하기로 한다.

2. 북한 『손말사전』의 성격

2.1. 『손말사전(롱아학교용)(2005)』

2.1.1. 구성

『손말사전(롱아학교용)(2005)』[1]은 안태성 외 8명이 집필하고 2005년 6월 20일 교육도서출판사에서 펴낸 것으로, 가로 19×세로 26cm, 822쪽, 견장정이다. 올림말 2,395개를 그림과 함께 해설을 단 것으로, 주요 구성은 '『손말사전』을 내면서(p. 1)', '일러두기(p. 2)', '차례(pp. 3-37)', '손의 구조·위치·동작 설명(pp. 38-52)', '자모순 손말과 해설(pp. 53-802)', '손말이 같은 단어들(pp. 803-821)'로 이루어져 있다.

'『손말사전』을 내면서'에서는 "새롭게 발전 풍부화된 손말 어휘들을 사전에 올림으로써 손말을 정리하고 롱아들의 언어생활에서 필수적인 성격을 띠는 어휘들을 통일적으로 교육할 수 있게 하였다."라는 '사전 편찬의 목적'을 밝히고 있다. 또한, 3,000여 개의 손말과 언어생활에서 기초가 되는 10여 개의 토들을 '올림말'[2]로 설정함을 밝히고 있다.

'일러두기'에서는 다음 사항을 명시하고 있다. 첫째, '올림말의 뜻풀이'는 기

1) 『손말사전(롱아학교용)(2005)』을 비롯하여 북한 손말사전에 대해서 도움(말)을 주신 영롱 농문화도서관과 세계밀알연합회 관계자님들께 감사드린다.
2) 실제로 이 사전의 올림말은 2,395개이며, 그중 '토'는 16개이다.

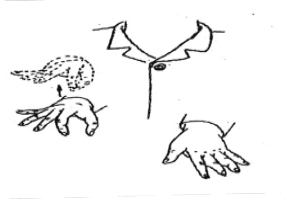
술하지 않는 것이 원칙이지만, 한 단어가 여러 가지 뜻으로 쓰이는 경우와 맞춤법이 같은 단어들에서 혼돈하는 일이 없도록 하기 위하여 해당한 뜻을 밝히고 있다. 둘째, 손동작의 해설 4가지를 밝히고 있다. 셋째,『손말사전』사용에서 지켜야 할 사항 6가지를 밝히고 있다. 넷째, 올림말의 배열은 글자의 자모순에 따르고 있다.

'자모순 손말과 해설'에서 올림말 2,395개의 자모별 수치는 [표 1]과 같다. 그중 형식 형태소로 본 '토'는 '-는, -도록, -들, -로(으로), -를, -보다, -부터, -까지, -께서, -께서는, -은, -을, -에, -에게, -에서, -의'의 16개이며,[3] 접사는 '-성, -적[2]'의 2개이다.

[표 1] '자모' 별 올림말의 수치

ㄱ	ㄴ	ㄷ	ㄹ	ㅁ	ㅂ	ㅅ	ㅈ	ㅊ	ㅋ	ㅌ	ㅍ	ㅎ	ㄲ	ㄸ	ㅃ	ㅆ	ㅉ	ㅏ
392	103	162	67	173	221	253	258	105	15	43	52	134	38	35	19	18	10	43
ㅑ	ㅓ	ㅕ	ㅗ	ㅛ	ㅜ	ㅠ	ㅡ	ㅣ	ㅐ	ㅒ	ㅖ	ㅚ	ㅟ	ㅢ	ㅘ	ㅝ	ㅙ	ㅞ
15	23	38	23	10	19	12	6	46	7	5	6	10	13	6	3	8	2	2

[그림 1]과 같이 올림말에 대해 왼쪽에는 손동작을 그림으로 보이고, 오른쪽에는 '가야금[명]'처럼 '올림말'과 '품사', [해설]로 손동작의 그림에 따르는 설명을 구체적으로 기술하고 있다.



가야금 [명]

[해설] 량손을 손바닥이 아래로 향하게 왼쪽으로 비껴펴서 손가락들을 벌린 다음 왼손을 약간 내리운다. 그리고 오른손을 약간씩 올리면서 첫 번째 손가락과 둘째 손가락끝을 맞붙여 가야금타는 모양을 나타낸다.[4]

[그림 1] '가야금'

'일러두기'의 '올림말의 뜻풀이'에서 보았듯이, 다음 두 가지 경우에 혼돈을 막기 위하여 해당 뜻을 밝히고 있다. 첫째, "한 단어가 여러 가지 뜻으로 쓰이는 경우"로서 (1)과 같이 다의어이다. 둘째, "맞춤법이 같은 단어들"로서 (2)와

3) 북한 손말에서는 토 '-는/-은', '-를/-을'이 별개의 올림말로서 손말의 형태가 다르다.
4) 이하 '북한 손말사전'의 인용은 그 정서법을 따르기로 한다.

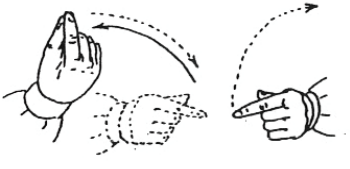
같이 동음이의어이다.[5)]

(1) a. 나무[1] [명] 줄기와 가지가 단단한 바탕으로 된 여러해 사는 식물.
b. 나무[2] [명] 재목이나 목재 혹은 땔나무.

(2) a. 갈다[1] [동] 날이나 끝을 (날카롭게 하기 위하여) 단단한 물체에 문지른다.
b. 갈다[2] [동] (농기구나 기계로) 땅을 파서 뒤집다.

또한, (3)과 같이 '준말'의 본딧말을 밝히고 있다. 한편, [해설] 밑 (※) 안에 같은 동작이면서 손 모양의 변화만 다른 경우를 밝히고 있다. 즉, [그림 2]와 같이 올림말 '시금치'에 '근대'를 첨가하고 있는데, 같은 동작의 '시금치'와 '근대'에서 '근대'의 손동작 변화를 밝히고 있으며, '로씨야'와 '주일', '장애'와 '방지', '시험'과 '경기'도 그러한 보기이다.

(3) 농근맹[명]《조선농업근로자동맹》의 준말.



시금치 [명]
[해설] 량손을 주먹바닥이 마주 향하게 앞으로 쥔 다음 첫째 손가락과 둘째 손가락들을 약간씩 벌린다. 량손을 그 자리에서 한손씩 엇바꾸어 주먹바닥이 우로 향하게 좌우로 돌리면서 첫째 손가락과 둘째 손가락끝 바닥들을 제각기 맞붙이는 동작을 한두번 반복한다.
(※ 〈근대〉의 경우에는 량손을 각각 좌우로 올리면서 같은 동작을 한다.)

[그림 2] '시금치'

5) 이 기준은 일관성을 지니지 못하는데, '만고' '못' '설복하다' '신소' '신심' '전호' '정령' '정전' '제기' '함영' '화신' '화점' 등은 동음이의어로서 손말 의미에 혼동을 일으키지만 '뜻풀이'가 없으며, '모레'는 다의어나 동음이의어도 아닌데 '뜻풀이'를 하고 있다.

2.1.2. 내용

『손말사전』의 내용을 '올림말'의 성격과 의미를 중심으로 살펴보기로 한다.

먼저, 올림말에서 주목되는 네 가지 사항을 들기로 한다. 첫째, (4a)의 두음 법칙이 다르거나 (4b)의 표기법이 다른 보기이다.

(4) a. 가렬하다, 녀동생, 대렬, 록화, 롱구, 롱담, 륙군, 리유, 래일
b. 거부기, 건느다, 고뿌, 기여들다, 도리여, 도마도, 도이칠란드, 드레박, 마치, 목란꽃, 무우, 미시가루, 바줄, 벌가리아, 불도젤, 숨박곡질, 스케트, 시내물, 세멘트, 저가락, 쳐부시다, 페, 홰불, 꾸바, 뜨락또르, 쁠스까, 뽐프, 아빠트

둘째, (5)의 문화어와 표준말이 별개의 형태로 나타난 경우이다.

(5) a. 가마치/누른밥, 난날/생일, 높은산지대/고산지대, 내굴/내, 닭알/달걀, 당콩/강남콩, 두리/둘레, 데림분수/대분수, 순경/경찰, 참분수/진분수, 땅생김/지형, 안해/아내, 우등불/모닥불
b. 로므니아/인디아, 로씨야/러시아, 마쟈르/헝가리, 체스코/체코, 캄보쟈/캄보디아, 웰남/베트남

셋째, (6)의 북한에서 생겨난 어휘로 표준말에 없는 경우이다.

(6) 가루기계, 결사옹위, 구호나무, 게사니, 다박살초소, '당의 유일사상', '당의 유일적령도체계', 데트론, 량권, 맥나다, 봉화리, 비날론, 소랭이, 손글, 손말, 수리화, 쇠돌, 정일봉, 조건타발, 청산리방법, 청산리정신, 초상휘장, 총비서, 채취공업, 체신소, 포로하다, 학생소년궁전, 혁명렬사, 혁명전통, 현지교시, 화학화, 아동단, 어로공, 어떡거다, 연필갑, 영생탑, 영양단지, 영예군인, 용해공, 인민군대, 인민위원회, 일색화

넷째, 북한 손말사전에 나타난 개성적인 경우이다. (7)은 (1960년대의) 농경사회에서 사용하던 어휘이며, (8)은 북한 특유의 정치와 군사에 관한 어휘이다. 한편, (9)는 다듬은 말을 지향하는 문화어의 경향과 다른 구호용 한자어이다. 이 사전의 올림말 2,395개가 330만 개 어휘를 싣고 있는『조선말대사전(1995)』의

빈도와 중요도를 고려한 것인지에 대해서는 가늠하기 어렵지만, '『손말사전』을 내면서'에서 보았듯이, 이러한 어휘들은 "롱아들의 언어생활에서 필수적인 성격을 띠는 어휘들을 통일적으로 교육할 수 있게 하였다."라는 관점에서 선정된 것이라 하겠다.

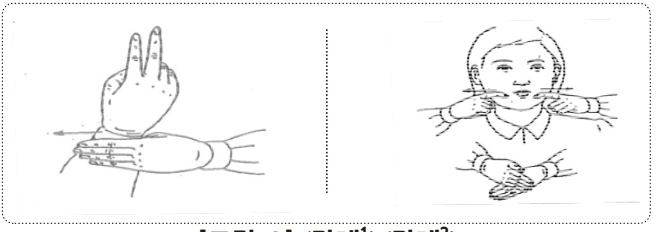
(7) 낟가리, 남포, 낫, 달구지, 돌피, 드레박, 등사기, 망나니, 머슴, 박우물, 분도기, 백묵, 사카린, 사탕가루, 삼태기, 성냥, 소작살이, 순경, 쇠스랑, 절구, 조, 주산, 지게, 짚, 짚신, 재봉, 쥐, 철필대, 철필촉, 칡, 포단, 팽이, 함, 호미, 꿩, 떼목, 뽕나무, 아주까리, 앉은뱅이, 여우, 엿, 오막살이, 울타리, 이랑, 앵두

(8) 결사옹위, 구호나무, 다박살초소, '당의 유일사상', '당의 유일적령도체계', 대고조, 로농적위대, 밀영, 반동, 보루, 보천보, 백전백승, 사령부, 사상혁명, 3대장군, 숙영지, 전취물, 정일봉, 종파주의, 주석단, 주체사상, 천리마작업반, 청년동맹청산리방법, 청산리정신, 초상휘장, 초소, 총비서, 친위대, 포로하다, 프로레타리아, 학생소년궁전, 혁명렬사, 혁명전통, 현지교시, 후비대, 핵무기, 아동단, 어로공, 영생탑, 영예군인, 요새화, 유격대, 유훈, 육탄

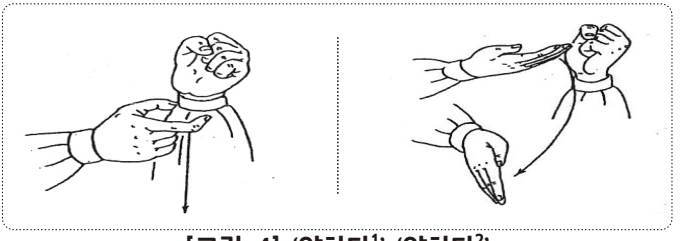
(9) 이민위천, 이신작칙

다음으로, 올림말의 의미에서 주목되는 다섯 가지 사항이다. 첫째, 다의어이다. 이 사전에서 다의어는 (10)의 10쌍이 올려져 있는데, (10a)의 9쌍은 [그림 3]의 '락제[1]' '락제[2]'와 같이 손말에서 아무런 연관성을 지니지 않는다. 특이하게 (10b)의 '약하다[1]' '약하다[2]'는 [그림 4]에서 보듯이 다소 상관성을 갖지만, 일반적으로 음성언어의 다의어는 손말에서 존재하지 않는다고 하겠다.

(10) a. 가을[1] 가을[2], 나무[1] 나무[2], 락제[1] 락제[2], 무장[1] 무장[2], 반대[1] 반대[2], 보고[1] 보고[2], 베다[1] 베다[2], 끊다[1] 끊다[2], 아저씨[1] 아저씨[2]
b. 약하다[1] 약하다[2]



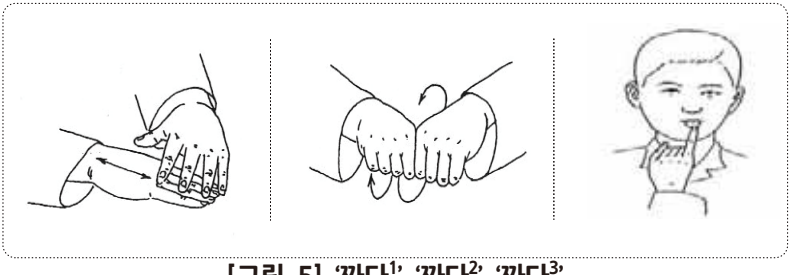
[그림 3] '락제[1]' '락제[2]'



[그림 4] '약하다[1]' '약하다[2]'

둘째, 동음이의어는 (11)의 21쌍이 올려져 있는데, [그림 5]의 '(가마니를)짜다[1]' '(물기를)짜다[2]' '(맛이)짜다[3]'에서 보듯이 음성언어와 달리 손말 간에 아무런 연관성을 지니지 않는다.

(11) 갈다[1] 갈다[2], 말[1] 말[2], 밤[1] 밤[2], 벌[1] 벌[2], 북[1] 북[2], 분[1] 분[2], 분수[1] 분수[2], 비[1] 비[2] 비[3], 배[1] 배[2], 수도[1] 수도[2], 자주[1] 자주[2], -적[1] –적[2], 전사[1] 전사[2], 전차[1] 전차[2], 지도[1] 지도[2], 천[1] 천[2], 초[1] 초[2], 침[1] 침[2], 풀[1] 풀[2], 때[1] 때[2], 짜다[1] 짜다[2] 짜다[3]



[그림 5] '짜다[1]' '짜다[2]' '짜다[3]'

셋째, 동의어인데, 이 사전에서는 끄트머리에 '손말이 같은 단어들' 1,369쌍을 덧붙이고 있다. 이것은 형태가 다른 음성언어의 동의어가 형태가 같은 하나의 손말로 사용됨을 뜻한다. 음성언어의 측면에서 보면 (12a)의 '같이=함께'처럼 좋은 동의어, (12b)의 '극복하다[결함이나 약점따위를 바로잡아 없애버림]'과 같이 기존 형태의 의미가 바뀌어 '시정하다'와 동의어가 된 경우, (12c)의 '가정=가족'과 같이 의미의 외연이 다른 경우, (12d)의 '마사지다=고장나다'와 같이 문화어의 새말과 기존의 단어가 동의어가 된 경우로 나뉜다.

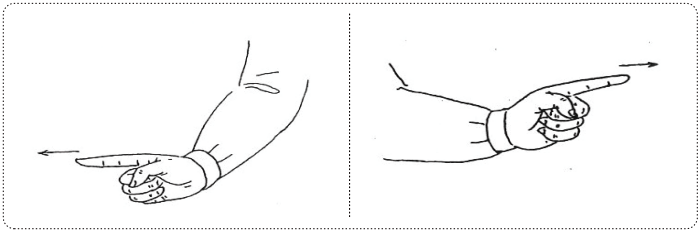
(12) a. 같이=함께, 공차기=축구, 낯=얼굴, 해=태양
b. 극복하다=시정하다, 몰살되다=녹아나다, 메케하다=멍청하다, 속보=벽보, 출장=여행
c. 가정=가족, 출석=출근, 체조=체육, 파도=물결, 합숙=기숙사, 효성=정성, 휴식터=놀이터=공원
d. 마사지다=고장나다, 말째다=불편하다, 자레우다=키우다, 조기다=때리다, 때식=밥, 따로외다=기억하다

넷째, 반의어이다. 손말의 경우 음성언어와 그 개념이 같지 않은데, 손말에서 (13a)의 '가볍다/무겁다'는 [그림 6]과 같이 아무 연관성이 없어 대립이 성립되지 않는 반면, (13b)의 '오른쪽/왼쪽'은 [그림 7]과 같이 좋은 대립을 이룬 사례가 공존한다. 실제로 이 사전에서 손말의 대립 여부를 온전히 규명하기 어려운데, (13c)의 '가깝다/(멀다)'의 '(멀다)'와 같이 손말의 짝이 수록되지 않은 경우가 많기 때문이다.

(13) a. 가볍다/무겁다
b. 곱다/밉다, 오른쪽/왼쪽, 과거/미래, 동생/형
c. 가깝다/(멀다), 긍정/(부정), 승리하다/(패배하다)



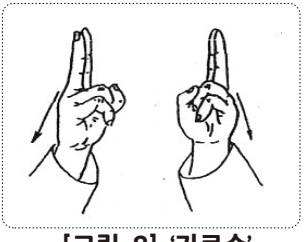
[그림 6] '가볍다/무겁다'



[그림 7] '오른쪽/왼쪽'

다섯째, 도상성, 환유, 은유이다. '도상성(iconicity)'은 손말의 형태가 그 지시물과 직접적인 상관성을 갖는 것인데, 손말의 형태가 (14a)는 [그림 8]의 '가로수'와 같이 '모양'을, (14b)는 [그림 9]의 '다리미'와 같이 '(다림질하는) 동작'을 닮아 있다.

(14) a. 가로수, 가위, 강, 골짜기, 굴착기, 긁다, 건달, 고양이, 길, 나무, 나팔, 낟가리, 닭, 숨박곡질, 자물쇠, 잠자다, 장갑, 철봉, 우산
b. 갈다, 감다, 굽이굽이, 다리미, 모내기, 비, 시내물, 싣다, 세수, 자르다, 장기, 주산, 제비, 청소, 치솔, 호미, 톱, 쌓다, 썰다, 쓰다, 씻다, 짜르다



[그림 8] '가로수'



[그림 9] '다리미'

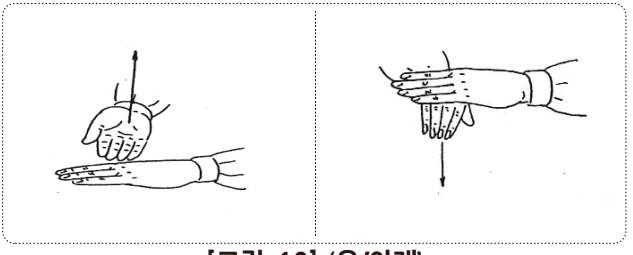
'방향'을 기준으로 좋은 대립을 이루는 반의어는 도상적인데, '우/아래'와 '앞/뒤'는 '직설적 도상성(literal iconicity)'이며, 이에 바탕을 둔 '비싸다/눅다', '이기다/지다', '발전/퇴보', '전진하다/후퇴하다'를 비롯한 (15)의 용례들은 '은유적 도상성(metaphoric iconicity)'이다. [그림 10]은 '우/아래', [그림 11]은 '비싸다/눅다'의 도상적 손말이다.

(15) a. 우: 고귀하다, 기세, 대표, 따뜻하다, 똑똑하다, 박사, 받들다, 배려, 부자, 분[1], 비싸다, 선조, 성공, 솟다, 수령, 숭고하다, 승리하다, 신성하다, 신조, 우두머리, 우뚝, 우러러보다, 위원장, 유명하다, 자라나다, 자유, 존경, 참되다, 창건, 총비서, 최고, 축하, 키우다, 통일, 튼튼하다, 패기, 풍년, 피다, 홰불, 희망, 힘

b. 아래: 꾸짖다, 눅다, 맥나다, 바보, 버리다, 벌[2], 벌금, 복종, 불합격, 불행, 서거하다, 섭섭하다, 쉬다, 슬프다, 신경질, 압박, 약하다[1], 약하다[2], 유치하다, 죽다, 지다, 진압, 처단, 학살, 항복, 허물다

c. 앞: 미래, 전진하다

d. 뒤: 어제, 후반, 후퇴하다, 뒤떨어지다, 휴가



[그림 10] '우/아래'

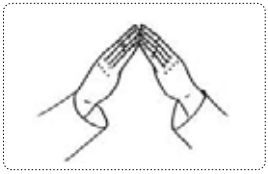


[그림 11] '비싸다/눅다'

(15)의 '우/아래' 방향 대립은 '좋은 것은 위/나쁜 것은 아래'의 은유에 해당한다. '기억하다, 관점, 명심, 박사, 사상, 신경질, 생각, 세계관, 연구, 의견' 등의 손말이 '머리'와, '관찰'이 '눈'과, '부담, 책임([그림 12])'이 '어깨'와 관련되는 것도 '은유적 손말'의 사례이다.



[그림 12] '책임'



[그림 13] '집'

한편, 부분에 해당하는 '지붕'과 '벼슬' 모양의 손말이 전체의 '집([그림 13]'과 '닭'을 지칭하는 것은 '환유적 손말'의 사례이다.

2.2.『손말학습(참고자료)(2005)』

2.2.1. 구성

『손말학습(참고자료)(2005)』은 김은희가 집필하고 2005년 8월 10일 조선장애자지원협회에서 펴낸 것으로 가로 14.6×세로 21cm, 310쪽, 연장정이다. 올림말 535개를 사진과 함께 해설을 단 것으로, 그 주요 구성은 '머리글(p. 1)', '차례(pp. 2-3)', '손말할 때 주의사항 등 6가지(pp. 4-6)', '손의 부위별명칭(pp. 7-9)', '손글자음(pp. 10-12)', '손글모음(pp. 13-15)', '왼손의 위치 설명(pp. 16-22)', '오른손의 동작 설명(pp. 23-28)', '부문별 손말과 해설(pp. 29-276)', '찾아보기(pp. 277-286)', '손말이 같은 단어들(pp. 287-309)'로 이루어져 있다.

'머리글(p. 1)'에서는 "청각장애자들과 그들과 교제하는 사람들, 손말을 배우기를 희망하는 사람들의 손말학습에 도움을 주기 위하여 일상생활에서 가장 많이 리용하는 단어 533개[6]를 사진과 함께 설명을 달아 쉽게 리해할 수 있게 만들었다."라고 하여 '편찬의 목적'을 밝히고 있다.

'부문별 손말과 해설'에서 18(+1)개 부문의 올림말 535개를 보이고 있는데, 부문별 항목 수는 [표 2]와 같다.

6) [표 2]에서 보듯이 실제로 이 사전의 올림말은 535개이다.

[표 2] 부문별 올림말의 수치

인사	가족	집	음식	시간과 요일	수자	학교	정치와 군사	날씨와 자연	동물	몸	직업	체육	경제	지명	색	동사	토	조선장애자지원협회
9	27	27	35	20	26	45	83	37	38	5	11	8	26	36	6	83	12	1

『손말학습(참고자료)(2005)』의 올림말은 18개 부문별로 이루어져 있으며, 각 부문은 '머리글'에서 명시하였듯이 "가장 많이 리용하는" 순으로 구성되어 있다고 하겠다. [그림 14]와 같이 올림말에 대해 왼쪽에는 손동작을 그림으로 보이고, 오른쪽에는 '안녕[명]'처럼 '올림말'과 '품사', 그리고 손동작의 그림에 따르는 [해설]을 하고 있는데, 오른쪽의 '올림말'과 '품사' '[해설]'은 『손말사전(롱아학교용)(2005)』과 동일하다.



안녕 [명]
[해설] 량손을 주먹바닥이 마주 향하게 앞으로 쥔 다음 동시에 아래로 약간 내리운다.

[그림 14] '안녕'

올림말의 [해설]에 덧붙인 기술방식 두 가지가 주목된다. 첫째, (16)의 5개 단어의 경우 뜻풀이를 단 뒤 [해설]을 하고 있다. 곧 '아저씨' '나무[1]' '나무[2]'는 음성언어의 다의어이며 '상' '전사'는 동음이의어로서 중의성을 피히기 위하여 뜻풀이를 부가한 것이다.

(16) a. 아저씨 [명]《언니》의 남편을 이르는 말.
b. 상 [명]《밥상, 원탁따위》를 통털어 이르는 말.
c. 전사 [명] 군사호칭의 맨 아래 직위 또는 혁명과 건설에 참가한 전투적인 성원.
d. 나무[1] [명] 줄기와 가지가 단단한 바탕으로 된 여러해 사는 식물.
e. 나무[2] [명] 재목이나 목재 혹은 땔나무.

둘째, (17)의 4개 단어([그림 15-18])의 경우 [해석] 밑 (※) 란에 '떡-목적', '남포-허탕', '만-2만, 3만', '충돌하다-가렬하다' 간에 앞말의 일부를 고치거나 추가하여 뒷말로 사용함을 밝히고 있다.

(17) a. 떡 [명] [해설] 왼손을 주먹바닥이 안으로 향하게 오른쪽을 비껴쥔다. 오른손을 주먹바닥이 아래로 향하게 둘째 손가락을 왼쪽으로 비껴펴서 구부린 다음 오른손을 왼손주먹 우에 약간 쳐들었다가 둘째손가락끝마디를 왼주먹 홈타기에 댔다뗐다 하는 동작을 한두번 반복한다. (※《목적》의 경우에는 오른손 둘째 손가락끝마디를 왼주먹 홈타기에 한번만 내려댄다.)

b. 남포 [명] [해설] 왼손을 주먹바닥이 안으로 향하게 오른쪽으로 비껴쥔다. 오른손을 손바닥이 안으로 향하게 왼쪽으로 비껴펴서 손끝들을 맞붙인다. 그리고 오른손을 왼팔굽우에 올렸다가 팔목바닥으로 왼팔굽을 두드리며 손끝을 튀기는 동작을 한두번 반복한다. (※《허탕》의 경우에는 같은 모양의 오른손가락들을 한번만 튀긴다.

c. 만 [수] [해설] 오른손을 손바닥이 왼쪽으로 향하게 세워펴서 손가락들을 벌려 구부린 다음 손끝을 오른쪽귀둘레에 가져다댄다. (※ 2만의 경우에는 수자 2를 표시하고 3만의 경우에는 수자 3을 표시한 다음 만동작을 각각 첨가한다.)

d 충돌하다 [동 [해설] 량손을 주먹바닥이 안으로 향하게 첫째 손가락들을 우로 편 다음 량손의 손가락아래마디잔등을 한두번 부딪친다. (※《가렬하다》의 경우에는 량손의 첫째 손가락들을 우로 펴지 않고 같은 동작을 한다.)



[그림 15] '떡'



[그림 16] '남포'



[그림 17] '만'



[그림 18] '충돌하다'

2.2.2. 내용

『손말학습(참고자료)』의 주목되는 양상 세 가지를 들면 다음과 같다.

첫째, '머리글'에서 밝혀놓았듯이 "손말학습에 도움을 주기 위하여 일상생활에서 가장 많이 리용하는 단어"를 18개 부문별로 선별한 것이다. [표 2]에서 보듯이 18개 부문을 갈래지은 것이나 각 부문의 올림말 차례 역시 빈도나 중요성을 고려한 것이라 하겠다. 올림말 3개를 포함한 18개 부문은 (18)과 같다.

(18) ①인사: 인사, 안녕, 만나다 ②가족: 아버지, 어머니, 할아버지 ③집: 초상화, 집, 방 ④음식: 밥, 국, 떡 ⑤시간과 요일: 요일, 일요일, 월요일 ⑥수자: 하나, 첫째, 둘 ⑦학교: 학교, 학생, 유치원 ⑧정치와 군사: 주석, 수령, 령도자 ⑨날씨와 자연: 날씨, 봄, 여름 ⑩동물: 동물, 동물원, 돼지 ⑪몸: 심장, 밸, 위 ⑫직업: 직업, 로동자, 농민 ⑬체육: 체육, 축구, 롱구 ⑭경제: 경제, 경공업, 공업 ⑮지명: 평양, 만경대, 백두산 ⑯색: 색, 붉다, 노랗다 ⑰동사: 살다, 죽다, 알다 ⑱토: -는, -에, -에게

올림말 가운데, ③의 '집'에서 '초상화', ⑧의 '정치와 군사'에서 '주석, 수령, 령도자', ⑩의 '동물'에서 '돼지', ⑬의 '체육'에서 '축구, 롱구', ⑮의 '지명'에서 '평양, 만경대, 백두산'의 올림말 및 차례는 북한 사회에서 가장 많이 이용하고 중요한 단어라는 점에서 주목된다. 또한, [표 2]의 올림말 수치에서 '동사'와 '토'를 제외하면 부문별 올림말의 크기는 '군사와 정치>학교>동물>날씨와 자연>지명>음식>가족·집>수자·경제>시간과 요일>직업>인사>체육>색>몸' 순인데, '정치와 군사(83개)'가 "일상생활에서 가장 많이 리용하는 단어"이다. ⑫의 '직업'에 수록된 '로동자·농민·사무원·기술자·의사·리발·용해공·목수·재봉·작가'는 북한

의 주요 직업 세계 10개를 보여준다.

둘째, 18개 부문의 올림말에서 일관성과 선정 기준의 문제점이다. 상위어가 11개 부문에서는 올림말로 제시된 반면, '가족' '음식' '수자' '정치와 군사' '몸' '지명' '동사'는 올림말로 올려지지 않았으며, '시간과 요일'에서 올림말의 배열은 '요일과 시간'으로 이루어져 있다. '날씨와 자연'에는 '달, 별'이 올려져 있으나 '해'가 없으며, '동물'에는 '돼지, 닭, 오리, 개'가 올려져 있으나 '소'가 없으며, '몸'에는 '심장, 밸, 위, 폐, 피'의 내장기관만 올려져 있다. '경제'에서 '교육, 문화'는 상위어에 포괄되기 어려운 올림말이다. '동사'에는 '살다[동], 나쁘다[형]'를 비롯하여, '좋다[명], 말[명], 진찰[명]' 등이 포괄되어 있는데, 손말에서 '말-말하다' '진찰-진찰하다'는 동일하지만, '좋다[명]'은 오류이다.

셋째, 이 사전의 끄트머리에는 '손말이 같은 단어들'의 목록 1,369쌍을 싣고 있다. 이 목록은『손말사전(롱아학교용)(2005)』의 내용과 동일하다.

2.3.『조선손말(카드)(2009)』

2.3.1. 구성

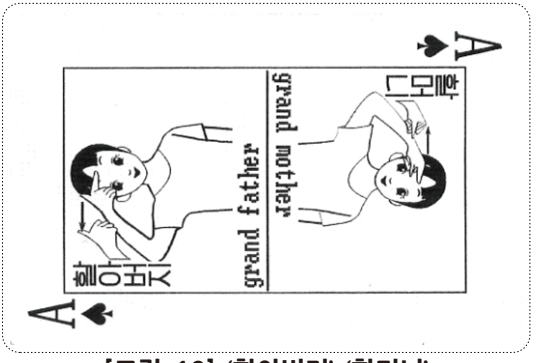
『조선손말(카드)(2009)』[7]은 주수양 외 2명이 디자인하고 독일에 본부를 둔 대북 구호단체 '투게더-함흥'이 세계농아인연맹(WFD)과 조선장애자보호연맹과 공동으로 주최하여 평양에서 열린 '제8회 국제 농아모임(2009.8.6.～12.)'을 위해 발행한 것으로, 가로 5.6×세로 8.6cm, 54장의 트럼프 카드이다. 손말은 106개인데, JOKER 두 장은 각각 1개의 손말로 되어 있고 104개의 손말은 각각 한 장의 카드 안에 2개의 단어 쌍이 맞선 그림으로 올려져 있다.

『조선손말(카드)』의 케이스 한쪽에는 "**Welcome** to the International Deaf Meeting in Pyongyang, 평양국제 롱인 모임에 참가하는 것을 환영합니다, **GOOD FELLOWSHIP, 친선련환모임**, Every year in summer since 2009, 2009년 여름부터 해마다 진행"이 표기되어 있다. 이 모임에는 독일, 중국, 몽골, 일본 등 8개국에서 20여 명의 농아인들이 참석하였다.

올림말의 모습을 보면 [그림 19]와 같은데, 하나의 카드 안에 (관련된) 단어 쌍이 맞선 손말 그림으로 이루어져 있다. 카드 안에는 '손말 그림'을 중심으로 위아래에 '조선말 표제어'와 '영어'가 병기되어 있다.

---

7)『조선손말(카드)(2009)』을 제공해 주신 전 나사렛대학교 윤병천 교수님께 감사드린다.



[그림 19] '할아버지' '할머니'

2.3.2. 내용

『조선손말(카드)(2009)』의 트럼프 카드 목록은 (19)와 같다.

(19) JOKER: 조선(Korea), 평양(Pyongyang)
A. 할아버지-할머니, 아버지-어머니, 아들-딸, 손자-손녀
2. 맏형-남동생, 맏언니-녀동생, 삼촌-고모, 남자-녀자
3. 선생님-학생, 총각-처녀, 결혼-리혼, 남편-안해
4. 가족-집, 1살-생일, 60살-100살, 이름-나이
5. 간부-지배인, 혼자-인민, 하늘-해, 달-별
6. 겨울-눈, 봄-비, 여름-번개, 가을-무지개
7. 어서-감사하다, 있다-없다, 미안하다-일없다, 좋다-나쁘다
8. 기쁘다-슬프다, 노래부르다-춤추다, 힘들다-휴식하다, 주다-가지다
9. 마시다-귀, 배부르다-배고프다, 축배를 들자-맛있게 드십시오, 곱다-밉다
10. 아침밥-점심밥, 식당-저녁밥, 맛있다-맛없다, 재미있다-재미없다
J. 밥-김치, 과일-남새, 고기-물고기, 빵-사과
Q. 건강하다-앓다, 친구-동무, 젊다-늙다, 크다-작다
K. 세계-동물, 보고싶다-다시 만납시다, 화산-공기, 물-불

(19)에서 JOKER는 '조선(Korea)', '평양(Pyongyang)' 각각이 단독으로 되어 있으며, 나머지 13벌은 맞선 손말 그림이 네 가지 문양(♠♥♣♦) 순서로 이루어져 있다. 'JOKER 조선(Korea)'은 청색의 한반도 지도와 붉은색 글자,

‘JOKER 평양(Pyongyang)’은 검은색의 소녀 그림과 글자, 그리고 카드 13벌에서 두 문양(♠♥), 예컨대 “A ♠ 할아버지 grand father ⇌ A ♠ 할머니 grand mother”는 검은색, “A ♥ 아버지 father ⇌ A ♥ 어머니 mother”는 붉은색으로 인쇄되어 있다.

(20)의 손말 카드 54장의 손말 106개에 나타난 맞선말의 관계는 7종류이다. 그중 (20a)의 대립어 34쌍, (20b)의 유의어 2쌍, (20c)의 부분-전체어 1쌍은 좋은 의미관계를 이룬다. 그 반면, (20d)의 관련어 3쌍, (20e)의 인사어 4쌍, (20f)의 수식관계어 8쌍은 의미장을 이루며, (20g)의 ‘마시다-귀’는 의미적 관련성이 전혀 없다.

(20) a. 대립어(반의어)(34쌍): 할아버지-할머니, 아버지-어머니, 아들-딸, 손자-손녀, 맏형-남동생, 맏언니-녀동생, 삼촌-고모, 남자-녀자, 선생님-학생, 총각-처녀, 결혼-리혼, 남편-안해, 60살-100살, 혼자-인민, 달-별, 있다-없다, 좋다-나쁘다, 기쁘다-슬프다, 노래부르다-춤추다, 주다-가지다, 배부르다-배고프다, 곱다-밉다, 힘들다-휴식하다, 아침밥-점심밥, 맛있다-맛없다, 재미있다-재미없다, 밥-김치, 과일-남새, 고기-물고기, 빵-사과, 건강하다-앓다, 젊다-늙다, 크다-작다, 물-불
b. 유의어(2쌍): 간부-지배인, 친구-동무
c. 부분전체어(1쌍): 평양-조선
d. 관련어(3쌍): 가족-집, 이름-나이, 저녁밥-식당
e. 인사어(4쌍): 어서-감사하다, 미안하다-일없다, 보고싶다-다시 만납시다, 축배를 들자-맛있게 드십시오
f. 수식관계(8쌍): 1살-생일, 하늘-해, 겨울-눈, 봄-비, 여름-번개, 가을-무지개, 동물-세계, 화산-공기
g. 무관계어(1): 마시다-귀

2.4.『손말사전(부문별손말)(2019)』

2.4.1. 구성

『손말사전(부문별손말)(2019)』[8]은 로경수 외 2명이 집필하고 2019년 7월 30

8)『손말사전(부문별손말)(2019)』과『한국수어 & 조선손말』을 제공해 주신 윤이근 전 남도국립국악원장님과 여위숙 전 국립어린이청소년도서관장님께 감사드린다.

일 조선롱맹경제문화교류사에서 펴낸 것으로, 가로 18.5×세로 26.5cm, 1,066쪽(앞부분 20쪽, 본문 1,013쪽, 뒷부분 33쪽), 견장정이다. 올림말 4,018개를 사진과 함께 뜻풀이를 단 것으로, 그 주요 구성은 '손말사전을 내면서', '손말동작표식기호', '조선손말자모편', '조선손말수자편', '차례', '김일성동지에 대한 손말', '부문별 손말', '동의어', '반의어', '찾아보기'로 이루어져 있다.

'손말사전을 내면서'에서는 "이전에 출판한 손말사전과 손말참고서의 일련의 부족점을 극복하고 독자들에게 보다 편리하고 풍부한 손말을 소유하도록 하기 위하여 용어 4,000개를 손말로 표기하고 13개의 부문으로 묶어 롱인들이 …… 주인으로서의 책임과 역할을 하도록 하며 롱인들과 함께 생활하는 일반사람들이 롱인들과의 언어적 교제를 원만히 진행하는 데 도움이 되도록 하였다."라고 하여 '사전 편찬의 목적'을 밝히고 있다.

이에 덧붙여 다음 세 가지 사항을 언급하고 있다. 첫째, "매 손말동작들에 대한 표기법을 새롭게 밝혀주어 롱인들과 일반사람들이 손말동작을 정확히 리해하도록 하였으며 단어에 해당한 뜻풀이를 넣어줌으로써 롱인들이 손말과 함께 그에 대한 뜻을 함께 파악하고 널리 리용할 수 있게 하였다." 둘째, "독자들이 손동작의 정확성을 쉽게 구분하도록 웃부분에 매 손동작에 해당한 손모양을 넣어주었으며 앞부분에 손말자모와 수자를 넣어주어 손말을 처음으로 배우는 롱인들과 일반사람들이 손말학습의 기초가 되는 자음과 모음, 수자를 자체로 배울 수 있게 하였다." 셋째, "앞부분에는 부문별로 손말을 찾아볼 수 있도록 '차례'를 주고 뒷부분에는 자모순서로 된 '찾아보기'를 줌으로써 독자들이 사전을 편리하게 이용하도록 하였으며 장애자와 관련한 여러 상식들을 넣어줌으로써 독자들이 장애자분야에 대한 보다 폭넓은 이해를 가지도록 하였다."

13개 부문별 실제 올림말 4,018개의 수치는 [표 3]과 같다.

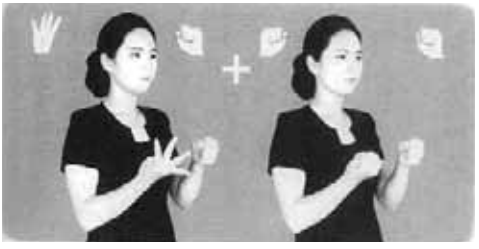
[표 3] 부문별 올림말의 수치

경제	교육	정보	국방	건설	농업	환경	문학	예술	체육	보건	상업	법률	계
510	632	140	447	342	240	270	240	188	278	230	284	217	4,018

『손말사전(부문별손말)(2019)』의 올림말은 13개의 부문별, 각 부문은 자모순으로 되어 있다.[9] [그림 20]에서 보는 바와 같이 올림말에 대해 왼쪽에는 손모

9) '건설' 부문의 올림말 상당수가 이 원칙을 지키지 않고 있는데, '영화'는 '대동문', '유희장'은 '대성산', '인민' '유원지'는 '릉라' 다음에 올라 있다.

양과 손동작의 손말을 사진으로 보이고, 오른쪽에는 '가격[명]' "《경제》 돈으로 표현된 상품의 가치 곧 상품의 가치가 화폐라고 하는 일반적 등가물을 통하여 표현된 것."과 같이 기술하고 있다.



가격 [명]
《경제》 돈으로 표현된 상품의 가치 곧 상품의 가치가 화폐라고 하는 일반적등가물을 통하여 표현된 것.

[그림 20] '가격'

[그림 20]에서 보듯이 "웃부분에 매 손동작에 해당한 손모양을 넣어주었으며 앞부분에 손말자모와 수자를 넣어준" 것이 이 사진의 특색이라 할 만하다. 『손말사전(부문별손말)(2019)』에는 '교육' '농업' 부문을 제외한 11개 부문 끄트머리에 '상식'란을 마련하여 '롱인'과 '손말'에 대한 이해를 돕고 있는데, 그 주제를 보면 (21)과 같다.

(21) ①장애자에 대한 개념과 분류 ②롱인에 대한 개념과 롱인이 되는 원인 ③롱인들이 왜 민족어를 힘들어하는가 ④일반사람과 롱인의 언어적환경 ⑤롱인들과 교제를 할 때 명심할 것은 무엇인가 ⑥롱인 고등교육에 리용되는 보조형태 ⑦우리 나라에서의 특수교육실시와 롱인들의 직업 및 문화활동[10] ⑧세계롱인연맹은 어떤 조직인가 ⑨국제롱인체육위원회 소개 ⑩롱인올림픽소개 ⑪세계손말통역위원회소개

이 가운데서 (21)의 ③에 대한 내용은 다음과 같다. "첫째로, 언어가 완전히 결핍된 상태에서 학교교육을 시작하기 때문이다." "둘째로, 대부분의 나라들이 손말과 민족어의 문법이 전혀 다르기 때문이다. 손말과 민족어의 차이, 례: 민족어의 구성-고뿌+있다+책상 우에, 손말의 구성-책상+우+고뿌+있다."이다.

10) 이에 따르면 북한에 다음의 8개 롱아학교가 있다고 한다. 강원도 원산롱아학교, 황해북도 봉산롱아학교, 황해남도 봉천롱아학교, 평안북도 운전롱아학교, 평안남도 성천롱아학교, 자강도 시중롱아학교, 함경남도 함흥롱아학교, 함경북도 삼봉롱아학교.

2.4.2. 내용

『손말사전(부문별손말)』의 주요 내용을 5가지 측면에서 기술하기로 한다.

첫째, 4,018개의 어휘를 13개 부문별로 펴낸 북한 최신의 대표적 손말사전이다. [표 3]에서 부문별 차례와 함께 올림말의 크기는 우선 순위 및 그 분야의 활성화 정도를 가리키는 지표라는 점에서 주목된다. 부문별 차례는 '경제>교육>정보>국방>건설>농업>환경>문학>예술>체육>보건>상업>법률' 순이며, 부문별 올림말의 크기는 '교육>경제>국방>건설>상업>체육>환경>농업·문학>보건>법률>예술>정보' 순인데, 두 지표가 상관성을 띠지는 않는다.

둘째, 부문별 손말사전으로서 상위어, 즉 부문의 명칭이 하위어, 즉 부분의 구성원을 망라하지 못하는 경우가 있는데, 그 주요 사례는 (22)의 '경제' '교육' '문학'에서 나타난다. (22a, b)에서 보듯이 '요일'은 '경제'와 '교육'에 들어 있으며, (22c)의 '문학' 부문 용례들은 '예술' 부문이 적합하다.

(22) a. 경제: '밤색' 등 색, 고열, '금요일' 등 요일, 기자, 대통령, 초상화, 타락, 탐구, 해명, 야심, 일편단심
b. 교육: 가늘다, 가다, 가만히, 경사, 경솔하다, 그늘, 그대로, 그리고, 그제, 과부, 광복, 권(등수에 들어가는 범위), 달다(맛), 맵다, -만, 만병초, 목침, 상가집, 현관문, '화요일' 등 요일
c. 경희극, 단막극, 련곡, 륜무, 배우, 석고상, 수예, 작곡, 조각, 희극, 연극, 연출, 예능

셋째, 이 사전에는 남북한 수어 또는 손말의 이질화 현상으로 (23)의 사례에서 보듯이 표준어와 형태가 다른 손말이 적지 않다.

(23) a. 경제: 보이라, 불도젤, 블로크, 비날론
b. 교육: 걸그림, 규률, 도리여, 량심, 소학교, 수업종, 참분수, 탁아소, 테제, 뻐스
c. 정보: 그라프, 계렬, 비루스, 프로그람, 화일, 인터네트
d. 국방: 경땅크, 기발, 려단, 령활하다, 뢰격, 원쑤
e. 건설: 리베트, 몰탈, 스레트, 탕크
f. 농업: 닭알, 도마도, 뚝, 뜨락또르
g. 환경: 거부기, 바다가, 에네르기

h. 문학: 가악, 격토, 머리글
i. 예술: 쟈즈, 트럼베트, 안삼불
j. 체육: 너비뛰기, 바줄당기기, 휴계실, 휘거, 쌈보
k. 보건: 비루스, 취장, 어금이
l. 상업: 고뿌, 샴팡, 스케트, 빠다, 쨈
m. 법률: 기률, 주대, 테로

넷째, 이 사전에는 표준말에서 찾아볼 수 없는 문화어가 적지 않은데, 그 주요 사례는 (24)의 286개이다. 이 가운데는 '자(1)' '후비' '약전' '원사' '기동' '기정(의)' '배경' '수신' '지령' '병실' '본때' '붉다' '사관' '문집' '강우기' '로작' '대기' '경질' '부루'처럼 동일한 형태에 단어의 의미가 다른 경우도 있다. 이것은 남북한 수어 또는 손말의 이질화가 심화된 증거로서, 이질화가 큰 분야는 '건설(70)' '체육(47)' '교육·정보·국방(27) 분야이다.

(24) a. 경제(16): 경로동, 돈자리, 대진군, 력일수, 만가동, 볼반, 비날론, 비단천, 벨트콘베아, 성(내각앞에 책임을 지는 국가주권의 부문별중앙집행기관), 쇠밥, 자력자강, 주색금, 콕스, 행표
b. 교육(27): 가창대, 거꿀명제, 교양론, 글뒤주, 녀맹, 단위원장, 도화공작, 독보, 데림분수, 류다른, 분단위원장, 상학, 소년회관, 소조, 자(1일정한 지역에 살며 어떤 사회를 이루는 구성성원), 직맹, 참분수, 총화, 학생물림, 학직, 현실체험, 후비, 약전, 열성자, 애육원, 원사
c. 정보(27): 경사체, 기동, 기정(의), 기자, 기억기, 과제띠, 날자(거래나 사건이 일어나는 시점), 능력(컴퓨터가 실행하는 속도 및 여러 가지 기능의 가동 능률), 내보(공개되지 않은 내적인 통보), 단추(자기에게 할당된 일정한 기능이나 동작을 조정하는 장치의 물리적 혹은 론리적부분품이다), 등록부, 대화칸, 말단, 봉사기, 배경, 수산기, 수신(국부망이나 전화선로와 같은 외부통신체계로부터 자료를 접수하여 서류로서 자료를 보관하는 것), 자원공유, 지령, 지름길, 재기동, 탈퇴, 호출, 흘림띠, 따내다, 오유, 임풀스
d. 국방(27): 경량견인포, 경무, 경무원, 경땅크, 군무생활, 군민일치, 군종, 군의소, 대포밥, 련공, 령장, 로농적위군, 무장장비, 반땅크수류탄, 병실(군인들이 생활하는 방), 본때, 붉다, 사관, 상급병사,상좌, 상위, 수직리착륙비행기, 자동보총, 자행포, 전호, 직승기, 원쑤

e. 건설(70): 4.25문화회관, H/T/V/ㄱ/ㄴ/ㄷ형강, 김일성광장, 경피문, 고려호텔, 골탄, 국제친선관람관, 굴토기, 개선청년공원, 괴면, 과학기술전당, 동평양대극장, 대동문영화관, 대동문, 대성산유희장, 대성산, 려명거리, 룡두기와, 리베트, 만경대물놀이장, 만경대유희장, 만수대예술극장, 만수대, 만수대의사당, 말뚝마치, 망홀, 모란봉극장, 못사슬걸개, 문집, 물뿌림차, 미림승마구락부, 미래과학자거리, 메아리사격관, 발포수지, 빙상관, 사판, 삭목, 삼지연, 숨은못, 신축식문, 쇠동발, 자름면도, 자리쇠, 주체사상탑, 창가림, 창전거리, 청류관, 콘베아, 탑식건물, 토수기와, 트라스, 평토기, 평양대극장, 평양국제문화회관, 향만루, 현수문, 형성안, 환기와, 뚜짐기계, 빨대, 옥류관, 옥외가구, 유기건재, 유람도, 은하과학자거리, 인민극장, 인민대학습당, (인민)문화궁전, 위성과학자지구

f. 농업(13): 가두배추, 강우기(밭에 물을 뿌려주는 기계), 개꼬리(강냉이의 수꽃이 피는 꽃이삭), 게사니(집에서 기르는 날짐승의 한가지), 다락밭, 만풍년, 모살이, 부침땅(농장물을 심어 가꾸는 땅), 분조, 주체농법, 쥐무우(붉은 봄무우를 달리 이르는 말), 양벗, 옥파

g. 환경(14): 등속운동, 락랑구역, 력포구역, 룡, 사동구역, 삼석구역, 서성구역, 석수, 선교구역, 순안구역, 중구역, 평천구역, 형제산, 형제산구역

h. 문학(10): 노죽(남의 마음에 들기 위하여 말, 표정, 몸짓, 행동 등을 일부러 지어내여 하는 것), 로작, 명가, 문의(글의 뜻), 맺음토, 바꿈토, 복수토, 속대사, 조선화, 에두름

i. 예술(7): 교예, 개시악, 늘크기, 대기, 통소리, 팔쓰기, 흔들기

j. 체육(47): 가슴멈추기, 감아잡기, 거꾸로서기, 걸어치기, 교치성, 금장갑상, 금축구화상, 금뽈상, 기상체조, 기전, 개인방어, 계시원, 귀환점, 나비헤염, 날치기사격, 날파람, 누운헤염, 네번치기, 도립회전, 도전경기, 등헤염, 락하산경기, 륜운동, 머리받기, 모터찌클, 문선, 물크키, 미끄러져빼앗기, 밀기, 밀어치기, 발배구, 살짝공, 손다치기, 셈세기, 쉴링, 조마, 쥐가일다, 처넣기, 철추, 추켜올리기, 탄력망, 판공넣기, 호케이, 끌어올리기, 끼워잡기, 빼몰기, 뺄헤염

k. 보건(5): 간종, 점적, 피형, 이삭, 이삭기

l. 상업(19): 가시장, 건발, 경질, 극동기, 농마, 달린옷, 당과류, 데트론, 레드등, 부루, 백합과자, 살결물, 소랭이, 신젖, 즉석국수, 콤팍등, 호

집개, 옥당, 옥쌀
m. 법률(4): 량정, 량해문, 법단, 융화묵과

다섯째, 이 사전에는 뒷부분에 '동의어' 577개를 싣고 있다. '동의어'는 (25)와 같이 그 양상이 다양한데, (25a)의 동의성이 인정되는 경우, (25b)의 내포나 외연이 다른 경우, (25c)의 의미가 다른 경우를 망라하고 있다. 더욱이, 이러한 '동의어'는 음성언어의 기준에 따른 것으로, 손말의 동의어가 아니다. 엄격히 말해서 '손말'에는 동의어가 존재하지 않고, 닮음이 다소 인정되는 유의어가 존재한다. 예를 들어, (26)의 '전진'의 반의어로 기재되어 있는 '퇴각-후퇴', '(개인)'의 반의어로 기재되어 있는 '단체-집단'은 '손말'이 동일한 것이 아니라 닮음이 어느 정도 인정된다는 점에서 유의어라 할 수 있다.

(25) a. 기초=초석, 토대, 바탕, 터
b. 결석=결근, 구름다리=공중다리, 굴다리, 고가교, 육교
c. 미신=신앙

(26) 전진/퇴각(국방부문)-후퇴(국방부문), (개인)/단체(체육부문)-집단(경제부문)

여섯째, 이 사전의 끄트머리에는 '반의어' 266개를 싣고 있다.[11] '반의어'는 손말의 대립 정도를 살펴볼 수 있는 유의미한 지표인데, 그 실상은 (27)과 같다. 그중『손말사전』에서 대립이 성립되는 사례는 (27a, b)의 51쌍인데, (27a)는 [그림 21]의 '가다/오다'처럼 원형적인 손말 반의어 22쌍이며, (27b)는 비원형적인 손말 반의어 29쌍이다. (27c)는 [그림 22]의 '가깝다/멀다'와 같이 음성언어의 반의어가 이 사전에 올라 있지만 손말 대립이 성립되지 않는 사례 47쌍이다. (27d)는 '가입/탈퇴'처럼 '가입'은 조직체의 성원으로 기술한 반면 '탈퇴'는 정보의 프로그램 실행으로서 반의어가 되지 않을 뿐만 아니라 손말에서도 반의어가 성립되지 않는 사례 4쌍이다. (27e)는 '가늘다/(굵다)'에서 '(굵다)'처럼 ( )의 단어가 올림말에 빠져 있는 사례 147쌍이며, (27f)는 '(거짓/진실 참)'처럼 올림말 자체가 이 사전에 없는 사례 17쌍이다. 요컨대 (28)은 음성언어의 관점에서 반의어일 뿐, 손말의 반의어는 (27a, b)의 사례에 국한된다.

11) '반의어'의 목록 가운데 '죄-공'은 '벌금-상금' 다음에, '복수-단수' 앞에 실려서 자모순의 일관성에 어긋난다.

(27) a. 가다/오다, 고혈압/저혈압, 고음/저음, 급상승/급강하, 나가다/나오다, 눅다/비싸다, 단식/복식, 득점/실점, 들어가다/들어오다, 머리글/맺는 글, 미래/과거, 밀물/썰물, 상류/하류, 설다/익다, 수신/송신 발신, 전진/퇴각 후퇴, 직접/간접, 퇴각/전진 (진격 진공), 편안/불편 불안, 헤여지다/만나다 (모이다), 열다/닫다

b. 가볍다/무겁다, 가지다/(내주다) 버리다 없다, 걱정/안심, 곱다/밉다 나쁘다 (거칠다), 개막식/폐막식, 도착/떠나다 (출발하다), 리득/손해 손실, 만나다/헤여지다, 멸시/숭배 존경, 분자/분모, 분해/결합, 상수도/하수도, 서장/종장, 선배/후배, 전반전/후반전, 전방/후방, 주심/부심, 증가/(감소) 축감, 지상/지하, 지옥/락원 천당, 축소/확대, 틀리다/맞다 (옳다), 파괴/건설 (개건 재건), 혁신/보수, 후방/전방 전선 전초, 확대/축소, 짝수/홀수, 인수/인계, 입원/퇴원

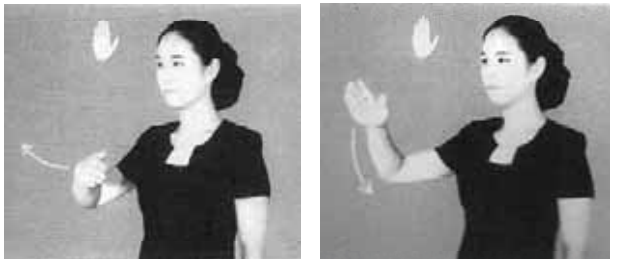
c. 가깝다/멀다, 간단하다/복잡하다, 거짓말/정말 참말, 건강/허약 쇠약, 결과/원인, 결석/출석, 경공업/중공업, 공격/방어, 공급/수요, 교전/정전 휴전, 구매/판매, 남자/녀자, 다무적/쌍무(적), 리론/실천, 맞다/틀리다, 무효/유효, 바깥/안, 발동/제동, 부유하다/가난하다 구차하다 못살다 빈곤하다, 분배/몰수, 배우다/가르치다, 살다/죽다, 수출/수입, 자연/인공, 작다/크다, 적군/아군, 접수/거절, 중독/해독, 제외/망라 포함, 죄/공, 참가/탈퇴 회피, 초식/육식, 출혈/지혈, 친구/원쑤 적 적수, 채권/채무, 크다/작다, 타살/자살, 특수/보통 보편 공통 일반, 퇴장/입장 참석 등장, 할 수 있다/할 수 없다, 현실/리상, 흡수/배출, 흥분/진정 제지 억제, 안심/걱정 근심, 유효/무효, 예속/자주(성) 자유 해방 독립, 위험/안전

d. 가입/탈퇴, 고전/현대, 나쁘다/좋다, 집중/분산

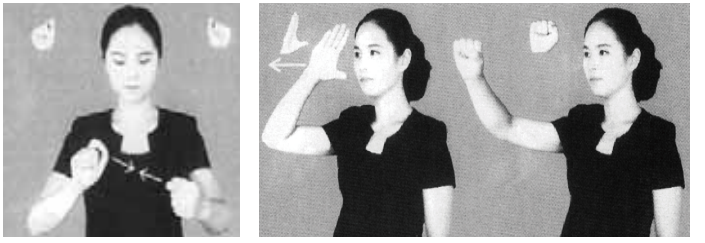
e. 가늘다/(굵다), (가담)/불가담, 가루/(덩어리), 가지런하다/(들쑹날쑹하다), 강하다/(약하다), 같이/(달리), 거만/(겸손), 거절/(수락 승낙 허락 응낙), 건조/(습하다 누긋하다), 걸작/(졸작), 견실하다/(불견실하다), 결단/(우유부단), 경로동/(중로동), 고급/(저급), 고랑/(이랑), 고속/(저속), 고생/(호강), 고집/(양보), 공세/(수세), 구부리다/(펴다), 군수/(민수), 군용/(민용), 굽히기/(펴기), 그늘/(양지), 근거리/(원거리), 근면/(태만), 근시/(원시), 긍정/(부정), 긍지/(수치), 기억/(잊다 까맣다 망각하다), 긴장/(해이 안일), 개학/(방학), 계속/(중단 중지), 과산/(저산), 관심/(등한), 광명/(암흑), 낡다/(새롭다), 남극주/(북극주), 낮/(밤), 낯

설다/(낯익다), 내성적/(개방적), 다르다/(같다 그리하다), 다층/(단층), 단결/(분렬), 단체 집단/(개인), 답답하다/(후련하다), 더/(덜), 도매/(소매), 락제/(급제), 련공/(반공), 령리하다/(미욱하다 미련하다), 롱담/(진담), 마지막/(처음), 만성/(급성), 먼저/(나중), 명랑하다/(침울하다 우울하다), 모르다/(알다), 무료/(유료), 미안하다/(당당하다 떳떳하다), 민물/(짠물), 메우다/(파다 뚫다), 바쁘다/(한가하다), 반대/(찬성), 발간/(폐간), 벌금/(상금), 복종/(불복), 부족(하다) (충족하다 풍족하다)/(유족하다), 부끄럽다/(떳떳하다 자랑스럽다), 불가능/(가능), 불경기/(호경기), 불만/(만족), 불편/(편리), 비법/(합법), 배경/(전경), 사랑/(증오), 삭제/(첨가), 상/(벌), 선불/(후불), 선진/(후진 락후), 설치/(해체), 성공/(실패), 소낙비/(보슬비), 소비/(축적), 수공업/(기계공업), 수재/(둔재), 슬픔/(기쁨), 승인/(부인), 시작/(끝내다 마치다 결속하다), 실업/(취직), 싱겁다/(짜다), 새끼/(엄지), 자랑/(수치), 자필/(대필), 잘/(잘못), 장탄/(퇴탄), 전반/(부분), 전승/(전패), 전쟁/(평화), 전/(후), 정의/(부정의), 조업/(폐업), 주역/(단역), 중시/(경시), 증강/(감쇠 감축), 지름길/(돌음길 두름길), 진급/(류급), 진보/(보수 락후 퇴보), 창조/(모방 모작 본따기 교조), 천천히/(빨리 급히), 침략/(불침략 불가침), 칭찬/(비난 질책 나무람 꾸중), 최고/(최저), 최종/(최초), 통하다/(막히다), 통일/(분렬), 편견/(공평), 편심/(정심), 풍년/(흉년), 풍작/(흉작), 피해/(가해), 패배/(승리 타승), 하부/(상부), 허위/(진실), 형식/(내용), 후대/(선대), 해임/(임명), 화목/(반목), 뻗치다/(수그러들다), 쌍방/(일방), 암담하다/(광휘롭다 창창하다), 압축/(팽창), 야간/(주간), 약속/(파약), 연장/(단축), 열기/(랭기 찬김), 영예/(수치 치욕), 용맹/(비겁), 운동/(정지), 응답/(질문 물음 질의 침묵), 이동/(고정), 일반/(개별 특별), 일용품/(기호품), 입력/(출력), 입학/(출학 퇴학), 애국/(매국), 위하다/(숙보다 깔보다 얕보다 해치다 해하다), 원가/(정가 실비)

f. (가물/장마), (가파롭다/탄탄하다 평평하다), (거짓/진실 참), (려명/황혼), (리륙/착륙), (례의/무례), (만기/조기), (명예/수치), (복수/단수), (부식물/주식물), (중심/주변), (척박/비옥), (쓰다/달다), (이상/정상), (있다/없다), (애호/혐오), (원쑤/벗)



[그림 21] '가다/오다'



[그림 22] '가깝다/멀다'

일곱째, 도상성, 환유, 은유이다. '도상성(iconicity)'은 손말과 손말이 가리키는 지시물의 형태가 닮은 것으로, 이 사전에서 이러한 손말들이 매우 많은데, (28)의 '모양'과 '동작' 사례에서 보는 바와 같다.

(28) a. 모양: 절단기, 넥타이, 삼각형, 거울, 계단, 낫, 번개, 벼락, 비, 가로수, 버섯, 하마, 악어, 책, 나팔, 권투, 가위
b. 동작: 나르다, 구부리다, 기와, 도장, 가래질, 갈다, 김매기, 모내기, 파종, 번개, 벼락, 비, 가야금, 장고, 피아노, 자전거, 기침, 체포

(27a)의 원형적인 손말 대립어 22쌍은 '도상성'을 잘 드러낸다. 구체적으로 (29)에서 보듯이 '방향'의 변인을 중심으로 한 고저 7쌍, 전후 5쌍, 개폐 2쌍, 그리고 손모양의 최소대립 3쌍, 가감에 따른 3쌍으로 나뉜다. 그 가운데서 원형적인 대립은 동일한 부문 17쌍에서 실현되며, '수신(정보부문)/송신(국방부문)'의

경우도 유관한 부분이라 할 수 있다.

(29) a. 고저(7): 고혈압/저혈압(보건부문), 고음/저음(예술부문), 급상승/급강하(국방부문), 밀물/썰물(환경부문), 상류/하류(환경부문), 눅다/비싸다(상업부문), 편안/불편(교육부문)
b. 전후(5): 가다/오다(교육부문), 나가다/나오다(교육부문), 들어가다/들어오다(교육부문), 전진/퇴각(경제-국방부문), 후퇴(국방부문), 미래/과거(건설-교육부문)
c. 개폐(2): 열다/닫다(교육부문), 헤여지다/만나다(교육부문)
d. 최소대립(3): 단식/복식(체육부문), 득점/실점(체육부문), 머리글/맺는글(문학 부문)
e. 가감(3): 익다/설다(농업부문), 수신/송신 발신(정보-국방부문), 직접/간접(경제-국방부문)

방향의 대립은 은유 또는 은유적 도상성의 좋은 보기인데, (30a) "위는 좋은 것이며, 아래는 나쁜 것이다"([그림 23]의 '존경/멸시' 참조), (30b)의 "앞은 미래이며, 뒤는 과거이다"의 손말 은유이다. 한편, (30c)의 사례는 신체어 '머리'와 관련된 손말로서 "머리는 두뇌이다"의 손말 은유이다.



[그림 23] '존경/멸시'

(30) a. 위: 기백, 최고, 풍작, 숭배, 존경, 건설, 진학, 아침, 발달
아래: 복종, 슬픔, 흉년, 패배, 멸시, 파괴, 자퇴, 쇼크
b. 앞: 미래, 전망, 활로
뒤: 과거, 어제

c. 관찰, 령리하다, 지능, 깨닫다, 원리, 과학, 천재, 느낌, 심리, 전술, 건망, 기억, 뇌수, 불면, 빈혈, 신경, 정신병, 혼수, 악몽

한편, 대상의 특징적인 한 부분으로 대상을 나타내는 '환유'의 보기인데, (31)의 '벼슬→닭[그림 24]', '코→돼지', '지붕→집[그림 25]', '뿔→양', '수염→염소'에서 보는 바와 같다.

(31) 닭, 돼지, 집, 양, 염소



[그림 24] '닭'



[그림 25] '집'

3. 북한『손말사전』의 특성

3.1. 올림말의 배열방식

북한 손말사전 4종의 올림말 배열방식은 '자모순' '부문별' '트럼프 카드'의 세 가지로 이루어져 있다. '자모순'의 방식으로 이루어진『손말사전(롱아학교용)(2005)』의 배열은 [표 4]의『조선말대사전(1992)』의 자모 순서와 같다.

[표 4]『손말사전(롱아학교용)』의 배열 순서

자음 순서	ㄱㄴㄷㄹㅁㅂㅅㅈㅊㅋㅌㅍㅎㄲㄸㅃㅆㅉ
모음 순서	ㅏㅑㅓㅕㅗㅛㅜㅠㅡㅣㅐㅒㅔㅖㅚㅟㅢㅙㅞ

한편,『한국수화사전(2005)』[12]의 배열은 [표 5]의『표준국어대사전(1999)』의 자모 순서와 같다.

[표 5]『한국수화사전』의 배열 순서

자음 순서	ㄱㄲㄴㄷㄸㄹㅁㅂㅃㅅㅇㅈㅉㅊㅋㅌㅍㅎ
모음 순서	ㅏㅐㅑㅒㅓㅔㅕㅖㅗㅘㅙㅚㅛㅜㅝㅞㅟㅠㅡㅢㅣ

[표 4, 5]에서 보듯이『손말사전(롱아학교용)(2005)』과『한국수화사전(2005)』은 자모 순서가 다르고, 손말사전의 경우 'ㅇ'이 빠져 있으며 두음법칙을 적용하지 않음으로써 두 사전에서 올림말의 순서가 상당히 다르다.

'부문별'로 구성된『손말학습(참고자료)(2005)』은 18개 부문으로 이루어져 있으며, 각 부문은 일상생활에서 사용빈도 및 중요도 순으로 이루어져 있다.『손말사전(부문별손말)(2019)』은 13개 부문으로 구성되며 각 부문은 자모순으로 이루어져 있다. [표 1]의 18개 부문과 [표 2]의 13개 부문에 대한 설정과 배열 순서는 상관성을 찾아볼 수 없다.

『조선손말(카드)(2009)』은 트럼프 카드에서 관련된 수어가 맞선 모양으로 이루어져 있다. JOKER와 14벌의 카드 배열은 중요도를 반영한 것으로 보이나 그 기준이 뚜렷하지는 않다.

한편, 한국 수어사전의 경우『한국수화사전(2005)』은 위에서 보았듯이 자모순으로 이루어져 있으며, 웹 기반『한국수어사전(2016)』[13]은 '일상생활', '전문용어', '문화정보' 수어로 대별된다. 그중 '일상생활 수어'는 16개 부문의 의미범주별로 제시되어 있고 범주 간에 배열 기준은 없으며, 각 의미범주 안에서는 조회 순, 정확도 순, 수형 순으로 배열되어 있다. 한국농아인협회의『한국수어(2021)』는 일상생활에서 사용 빈도가 높은 단어 1,350개를 선정하여 (32)의 20과로 구성하였다.

---

12)『한국수화사전(2005)』은 한국표준수화규범 제정 추진위원회에서 엮고 2005년 3월 31일 도서출판 사단법인 한국농아인협회에서 펴낸 것으로, 가로 19.1×세로 26.5cm, 1,723쪽, 견장정이다. 이 사전의 올림말은 6,812개이며, 동일한 내용으로 간행 주체가 '문화관광부·한국농아인협회'에서 '문화관광부 국립국어원·한국농아인협회'로 바뀌어 2007년 6월 20일 개정판이 나왔다.

13)『한국수어사전(https://sldict.korean.go.kr/)』과 북한 손말사전에 대해 도움말을 주신 국립국어원 정혜선 연구사님께 감사드린다.

(32) 인사, 가족, 요일·시제, 자연, 학교(1), 학교(2), 교통 및 통신, 인체, 병원, 운동, 종교, 나라, 동물, 식물·성씨·색상, 음식, 직업, 사회 일반, 경제, 흔히 쓰는 단어들, 혼동되기 쉬운 단어들

요컨대 북한 손말사전의 올림말 배열 방식은 '자모순' '부문별' '트럼프 카드'의 세 가지로 이루어져 있으며, '부문별'의 경우 각 부문이 사용빈도 및 중요도 순, 그리고 자모순으로 되어 있다. '자모순'은 이른바 '가나다 사전'과 같이 이해에 효율적이며 '부문별'은 갈래사전 또는 분류사전과 같이 표현에 효율적이다. 기초적인 손말을 한글과 영어로 병기한 휴대용 '트럼프 카드'는 국제 농아 모임과 같이 다국적 모임에서 기초적이고 필수적인 어휘로서 의사소통에 기여한다는 점에서 특이한 발상이라 하겠다.

3.2. 손말 동작의 기술 방식

손말 동작의 기술 방식을 보기로 한다. 『손말사전(롱아학교용)(2005)』은 손의 구조를 그림으로 주고 올림말의 [품사]와 [해설]란에 손동작 그림의 설명을 달았다. 그림에서 '화살표(→)'는 다음 동작의 방향을, '점선(…)'은 다음 동작을 표시하였다. 『손말학습(참고자료)(2005)』은 손동작을 사진으로 담고 올림말의 [품사]와 [해설] 란에 손동작 사진의 설명을 달았다. 사진에서 '화살표(→)'는 다음 동작의 방향을 표시하였다. 『조선손말(카드)(2009)』은 하나의 카드 안에 손의 구조를 그림으로 주고 올림말을 한글과 영어로 병기하였다. JOKER의 '조선(Korea)', '평양(Pyongyang)'은 단독 카드로 소녀의 그림을, 나머지 13벌은 소년을 그린 맞선 모양의 손말 그림을 배치하고 있는데, 한 벌의 카드 글씨를 한 장은 검은색으로 다른 한 장은 붉은색으로 인쇄하였다. 『손말사전(부문별손말)(2019)』은 오른쪽에 '올림말'을 싣고 [품사]와 뜻풀이를 제시하였으며, 왼쪽에 손동작의 사진과 윗부분에 손동작의 손 모양을 넣어 주고 있다. 실제로 '손 모양'은 '감, 소, 짝수, 개, 교잡, 색맹, 장애, 왁찐, TV, 송편, 신선로, 저울, 잉크, 도박, 억울하다' 등 손말 사진의 불투명한 상태를 보완해 준다.

한편, 한국 수어의 경우 『한국수화사전(2005)』은 [그림 26]의 '나라'에서 보듯이 왼쪽에 올림말을 중심으로 품사 정보의 '어법', '뜻풀이', '용례', '어원 정보'를 제시하고 오른쪽에 '수어 그림', '수어 설명'의 6가지 정보를 제시하고 있다.

나라 명

한 국토에서 하나의 주권 아래 있는 사람들의 조직.
예 나라를 지킨다.
[지구의를 돌리는 동작]
=국가.



두 손의 손가락을 약간 구부려 마주 보게 세워 전후로 약간 흔든다.

[그림 26] '나라'

웹 기반『한국수어사전(2016)』은 왼쪽에 동영상을 제시하고 오른쪽에 '수형 사진'과 '수형 설명'을 제시하고 있다. '일상생활 수어>인간>못생기다'의 올림말 '못생기다'를 보면 [그림 27]과 같으며, '한국어 대응표현'으로 '못생기다, 못나다, 추하다, 밉다'를 덧붙이고 있다.



[그림 27] '못생기다'

한국농아인협회의『한국수어(2021)』는 올림말에 대해 '인사(人事, greeting)'처럼 '한글(한자, 영어)'를 병기하고 손동작을 설명하며, 왼쪽에 천연색의 손동작 사진을 싣고 있다.

요컨대 북한 손말사전의 손말 동작 기술은 그림과 사진, 손동작 해설과 단어 뜻풀이 방식으로 이루어져 있다. 손말사전의 흑백사진은 해상도가 문제시되며,『손말사전(부문별손말)(2019)』의 경우 단어의 뜻풀이보다는 손말 동작의 설명이 적절한 것으로 보인다.

3.3. 표제어 수

북한 손말사전의 올림말을 보면 『손말사전(롱아학교용)(2005』은 2,395개, 『손말학습(참고자료)(2005)』은 535개, 『조선손말(카드)(2009)』는 106개, 『손말사전(부문별손말)(2019)』은 4,018개가 실려 있다.

한편, 한국 수어사전의 올림말을 보면 『한국수화사전(2005)』은 6,812개의 표제어를 싣고 있다. 2016년 4월 20일 국립국어원에서 개통한 『한국수어사전(https://sldict.korean.go.kr/)』은 기존의 한국수어 웹사전과 모바일 앱 사전 등을 통합하여 새롭게 정비한 사전으로, [표 6]과 같이 표제어 수는 15,542건(2024.11.1. 기준)이며, 그중 '일상생활 수어'는 3,669건이다. 한국농아인협회의 『한국수어(2018)』는 일상생활에서 빈도가 높은 1,350개의 수어를 수록하고 있다.[14)]

[표 6]『한국수어사전』 표제어 수(2024.11.1. 기준)

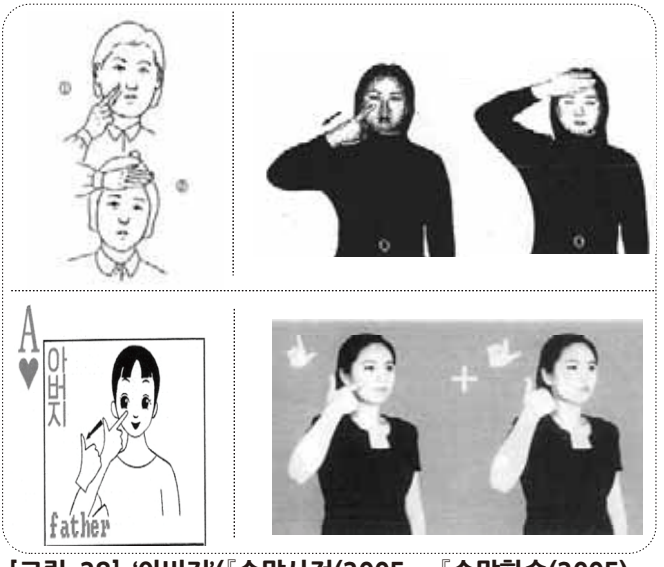
일상생활 수어(3,669건)		전문용어 수어(10,281건)		문화정보 수어(1,592건)	
인간	328	법률	508	국립 중앙 박물관	548
삶	252	교통	519	국립 민속 박물관	67
식생활	137	의학	1,054	국립 경주 박물관	100
의생활	44	정보통신	575	국립 공주 박물관	40
주생활	61	불교	1,117	국립 부여 박물관	62
사회생활	316	천주교	1,005	국립 진주 박물관	50
경제생활	104	기독교	1,297	대한민국 역사 박물관	90
교육	70	국어 교과 용어	1,322	국립 과천 과학관	60
나라명 및 지명	200	경제	1,343	국립 광주 박물관	80
종교	70	정치	1,541	국립 김해 박물관	60
문화	93			국립 대구 박물관	50
정치와 행정	66			국립 전주 박물관	61
자연	45			국립 제주 박물관	60
동식물	62			국립 청주 박물관	60
개념	330			부산 시립 박물관	80
기타	1,545			국립 나주 박물관	64
				국립 춘천 박물관	60

14) 올림말의 다른 사례로서, 한국표준수화규범 제정 추진위원회(2004)의 『일본어-수화사전』은 8,320개, (2004)의 『한국어-스페인 수화사전』은 3,500여 개, (2008)의 『한국어-미국수화사전』은 7,138개이다.

3.4. 손말 동작의 대비

북한 손말사전의 올림말에 대한 손말 동작을 살펴보기로 한다. 올림말을 그림이나 사진으로 제시하고 손동작을 해설하거나 올림말의 뜻풀이를 넣는 등 사전마다 그 양상이 개성적이다.

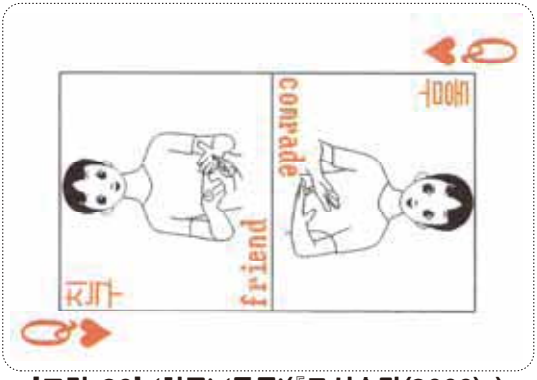
올림말 '아버지'에 대한 손말을 대비하면 [그림 28]과 같다.



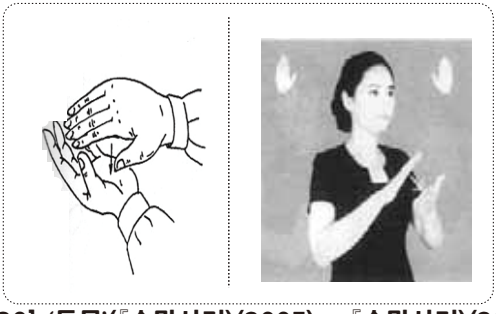
[그림 28] '아버지'(『손말사전(2005』, 『손말학습(2005)』, 『조선손말(2009)』, 『손말사전)(2019)』)

'아버지'의 『손말사전(롱아학교용)(2005』과 『손말학습(참고자료)(2005)』의 손동작 해설은 "①오른손을 주먹바닥이 왼쪽으로 향하게 둘째 손가락을 우로 펴서 손가락끝바닥을 오른뺨에 대고 뒤로 약간 스쳐내리운다. ②오른손을 손바닥이 안으로 향하게 뉘워펴서 손바닥을 이마 웃부분에 가볍게 댄 다음 머리카락을 약간 스치면서 머리 뒤부분까지 옮겨 남자의 머리모양을 나타낸다."이다. 그런데 『조선손말(카드)(2009)』은 위 ①과 같으며, 『손말사전(부문별손말)(2019)』은 ①은 같으나 ②의 손동작이 다르다.

손말사전에서 손동작이 다른 또 다른 사례이다. 『조선손말(카드)(2009)』의 '친구(friend)-동무(comrade)'는 [그림 29]에서 보듯이 별개의 손말이다.



[그림 29] '친구' '동무'(『조선손말(2009)』)



[그림 30] '동무'(『손말사전)(2005)』, 『손말사전)(2019)』)

그 반면 [그림 30]의 '동무'는 『손말사전(롱아학교용)(2005)』과 『손말사전(부문별손말)(2019)』의 손말인데, 이 두 사전에는 '친구'가 올림말로 등재되지 않았다.

『손말사전(롱아학교용)(2005)』의 '손말이 같은 단어들'에 따르면 '동지[명]=동무', '친구[명]=동무', '친우[명]=동무'로 기술되어 있어서 '동지=동무=친구=친우'는 손말이 같다. 이와 관련하여, 『조선말대사전(1992)』에서는 '친구'와 '동무' 간에 의미 차이가 존재하므로,[15] 손말을 달리한 『조선손말(카드)(2009)』가 주목된다.

15) '동무' ①《로동계급의 혁명위업을 이룩하기 위하여 혁명대오에서 함께 싸우는 사람》을 친근하게 이르는 말. ②같이 어울리여 사귀는 사람. ③일반적으로 남을 무간하게 부를 때에 쓰는 말. '친구' ①친하게 사귀는 벗 ②상대편을 스스럼없게 여기며 무간하게 부를 때 이르는 말.

‘큰물’은 [그림 31]의『손말사전(롱아학교용)(2005)』과『손말사전(부문별손말)(2019)』에서 손동작에 차이가 있는데, 전자에서는 1형태인 반면 후자에서는 2형태로 되어 있다. 이것은『손말사전(부문별손말)(2019)』의 ‘손말사전을 내면서’에서 “이전에 출판한 손말사전과 손말참고서의 일련의 부족점을 극복하고…”의 보기가 될 만하다.



[그림 31] ‘큰물’(『손말사전(2005)』,『손말사전(2019)』)

3.5. 의미와 의미관계

손말사전의 의미와 의미관계를 보기로 한다.

『손말사전(롱아학교용)(2005)』의 경우 (10)의 ‘가을[1]’ ‘가을[2]’와 같이 다의어 10쌍, 그리고 (11)의 ‘갈다[1]’ ‘갈다[2]’와 같이 동음이의어 21쌍이 실려 있지만, 손말에는 다의어나 동음이의어가 존재하지 않는다. 또한, 이 사전에는 끄트머리에 ‘손말이 같은 단어들’ 1,369쌍을 덧붙이고 있는데, ‘가정=가족’, ‘간사하다=깜찍하다’, ‘기념관=박물관’ 등에서 보듯이 그 외연과 내포의 동의성 여부에 논의의 여지가 있을 뿐 아니라, 실제로 손말에서는 동의어가 존재하지 않는다. 반의어 또는 대립어 역시 손말에서는 음성언어와 다른 방식으로 실현되는데, (13)에서 보듯이 ‘가볍다/무겁다’와 같이 대립이 성립되지 않는 경우, ‘곱다/밉다’와 같이 좋은 대립이 성립되는 경우, ‘가깝다/(멀다)’와 같이 손말의 짝이 수록되지 않아 대립 여부를 규명할 수 없는 경우로 나뉜다. 이 사전에는 손말의 형태와 의미 간에 상관성을 갖는 도상성, 환유, 은유의 사례가 풍부한데, 이것은 손말의 올림말이 2,395개나 될 뿐 아니라 손동작의 그림이 뚜렷하여 그 상관성을 검증하기에 적합하기 때문이다.

『손말학습(참고자료)(2005)』의 경우 두 가지 특징을 들 수 있다. 이 사전의 올림말은 일상생활에서 가장 많이 이용하는 535개의 단어를 18개 부문에서 선

별한 것으로, ‘동사’와 ‘토’를 제외하면 부문별 올림말의 크기는 ‘군사와 정치>학교>동물>날씨와 자연>지명>음식>가족·집>수자·경제>시간과 요일>직업>인사>체육>색>몸’ 순이다. 그중 ‘정치와 군사(83)’는 “일상생활에서 가장 많이 리용하는 단어”이며, ‘직업’에 수록된 ‘로동자·농민·사무원·기술자·의사·리발·용해공·목수·재봉·작가’는 북한의 주요 직업 유형이다. ‘집’에서 ‘초상화’, ‘정치와 군사’에서 ‘주석, 수령, 령도자’, ‘동물’에서 ‘돼지’, ‘지명’에서 ‘평양, 만경대, 백두산’의 올림말 차례는 북한 사회에서 가장 중요하고 많이 이용하는 단어로서 주목된다. 이 사전의 끄트머리에는 ‘손말이 같은 단어들’의 목록을 싣고 있다. 올림말의 수치가 535개로서 올림말이 2,395개인 『손말사전(롱아학교용)(2005)』의 목록을 그대로 싣고 있는 것은 적절하지 않다고 하겠다.

『조선손말(카드)(2009)』은 손말 카드 54장에 손말 106개를 싣고 있다. 한 장의 카드 안에 맞선말을 대칭적으로 싣고 있는데, 대립어 34쌍, 수식관계어 8쌍, 인사어 4쌍, 관련어 3쌍, 유의어 2쌍, 부분-전체어·무관계어 1쌍 순이다.

『손말사전(부문별손말)(2019)』의 경우이다. 이 사전에는 끄트머리에 ‘동의어’ 577개를 싣고 있는데, ‘동의어’라는 용어는 『손말사전(롱아학교용)(2005)』이나 『손말학습(참고자료)(2005)』의 ‘손말이 같은 단어들’이라는 용어가 더 적절하다고 하겠다. 그 까닭은 ‘결석=결근’, ‘미신=신앙’ 등이 동의어가 아니라 손말이 같은 단어로 사용되기 때문이다. 이 사전의 끄트머리에는 ‘반의어’ 266개가 실려 있는데, 이는 음성언어의 관점에서 반의어일 뿐 손말의 반의어는 ‘가다/오다’처럼 원형적인 손말 반의어 22쌍과 ‘가볍다/무겁다’처럼 비원형적 손말 반의어 29쌍, 모두 51쌍에 지나지 않는다. 이 사전에서 손말의 형태와 의미 간의 닮음에 관한 ‘도상성’은 ‘절단기, 넥타이, 삼각형’과 같이 사물의 모양, ‘나르다, 구부리다, 도장, 가래질’과 같이 사물의 동작을 본뜬 사례들이 풍부하다. 닮음에 바탕을 둔 추상적 방향의 대립은 ‘은유’의 보기가 되는데, ‘기백, 최고, 풍작, 승배’ 등의 ‘위’, 그리고 ‘복종, 슬픔, 흉년, 패배’의 ‘아래’는 “좋은 것은 위, 나쁜 것은 아래”이며, ‘미래, 전망, 활로’의 ‘앞’, ‘과거, 어제’의 ‘뒤’는 “앞은 미래, 뒤는 과거”의 손말 은유이다. 대상의 특징적인 한 부분으로 대상을 나타내는 ‘닭, 돼지, 집, 양’ 등은 손말 ‘환유’이다.

한편, 『한국수화사전(2005)』에서 ‘가구’ ‘악기’ ‘건물’ ‘채소’ 등 상위어는 하위어의 원형적인 동작 및 기본층위 구성원과 여러 가지를 결합하거나 ‘명암’ ‘가감’ 등 이항 대립의 두 하위어를 합성하며, ‘봄’ ‘송아지’ ‘참새’ 등의 하위어는 상위어에다가 개체의 특징적인 성질을 결합한 것으로 나타나는데(임지룡 2021a: 829-834 참조), 북한의 손말사전에서는 이러한 사례가 나타나지 않는다.

3.6. 손말과 수어의 일치도

남북한 언어의 이질화 정보는 많이 알려져 있는 반면, 한국의 수어와 북한의 손말의 같고 다름은 거의 논의 되지 않은 실정이다. 그런 점을 고려할 때 김태수(2008), 박금순(2021)이 주목된다.

김태수(2008)는 한국의『한국수화사전(2005)』과 북한의『손말사전(롱아학교용)(2005)』에서 표제어가 일치하는 1,660개를 추출하여 '수형·수동·수위·수향'의 음운단위에서 일치도를 검증하였다. 그중 일치하는 어휘는 (33)의 213개(13%)이며, 음운단위 중 하나 이상 일치하는 경우는 776개(47%), 완전 불일치하는 경우는 671개(40%)로 집계되었다.

(33) 가난(하다), 가다, 가렵다, 가운데, 가위, 감자, 같다, 거북(거부기[16]), 걱정, 걷다, 걸레, 검다, 경기, 고구마, 고기, 고래, 고양이, 고장(나다), 곤란(곤난), 골짜기, 곱(곱하기), 곳, 공산주의, 구별(하다), 그네, 그러나, 기계, 기차, 길다, 깊다, 깎다, 꺼내다, 꽃, 꽃봉오리, 나비, 나쁘다, 낮, 낮다, 내일(래일), 넘어지다, 노래, 놀다, 높다, 누나, 느리다, 다니다, 다행, 단체, 단추, 닫다, 달아나다, 닭, 담배, 더하기[2], 던지다, 도장, 독일(도이월란드), 돋다, 동물, 동물원, 동안, 두다, 듣다, 따뜻하다, 따르다, 떡, 뜨겁다, 라이터(라이타), 막다, 만나다, 만들다, 만세, 맛, 먹, 멸망(하다), 명령, 명태, 모기, 모레, 모르다, 모습, 목욕, 목적, 몸, 못하다, 무너지다, 문어, 물다, 바쁘다, 바지, 발표, 배우다, 백, 버릇, 버리다, 범, 보다[2], 보도, 복숭아, 부럽다, 부산, 부족(하다), 부지런하다(부지런히), 부채, 북, 붉다, 비누, 비밀, 비슷하다, 빨래, 빵, 뼈, 사닥다리(사다리), 산, 생각, 서다, 서울, 석탄, 선거, 선물, 선조, 성냥, 세수, 소화, 수고(하다), 수첩, 승용차, 시작, 쓰레받기, 씨름, 아직, 알다, 압박, 앞, 얇다, 어린이, 어제, 언니, 얼굴, 역사(력사), 연기(내굴), 영화, 옆, 오늘, 오빠, 온도, 옷, 욕심, 울다, 웃다, 원숭이, 유리, 유치원, 유치하다, 의, 이사, 이야기, 일본, 일어나다, 자기, 자동차, 자립, 자연, 잘, 잠시, 잠자리, 전기, 전화, 절반, 젊다, 젓가락(저가락), 조각, 조금, 조심(하다), 좋다, 주다, 주사, 준비(하다), 쥐, 지다[3], 지붕, 지우다, 진찰, 집, 짜다[2], 짜다[3], 찢다, 책, 책임, 천[1], 천막, 체육, 축하, 친척, 칠판, 칼, 컴퍼스(콤파

16) '거북(거북이)'와 같이 쌍형의 경우 괄호 안에 제시된 것은『손말사전』(2005)의 용어이다.

스), 키, 털, 토끼, 토마토(도마도), 통, 편지, 평행봉, 피다, 하다, 학교, 행복, 형, 훔치다[2], 희망, 힘

박금순의 『한국수어 & 조선손말 : 남북한 기초생활 수어어휘(2021)』[17]에서는 『한국수어(한국농아인협회)(2018)』와 『손말학습(참고자료) (2005)』을 대상으로[18] 남북한이 일상에서 사용하고 있는 기초생활 수어어휘 497개를 선정 수록한 것이다. 두 사전은 분야별 기초생활 수어 또는 손말이라는 점에서 공통점을 가지고 있으며, 어휘 수에서 『손말학습(참고자료)(2005)』이 533개이며, 『한국수어(한국농아인협회)(2018)』[19]가 1,350개인 점에서 『손말학습(참고자료)(2005)』이 기준이 되었음을 알 수 있다. 사전의 끄트머리에 '찾아보기'와 『손말학습(참고자료)(2005)』의 '손말이 같은 단어들'을 싣고 있다. 『한국수어 & 조선손말(2021)』은 [그림 32, 33]에서 보듯이 '올림말(한국어, 한자어, 영어)' '남북한 수어와 손말 사진', '손말의 해설'로 이루어져 있으며, 이 사전의 김연주 한국수어 모델과 심정순 조선손말 모델의 컬러 사진은 선명도가 매우 높다.

이 사전의 497개 가운데 완전 일치하는 사례는 (34)의 90개(18.11%)이다.

(34) 만나다, 헤어지다, 괜찮다, 가족, (남자의)형, (남자의)남동생, 오빠, (여자의)남동생, 누나, (남자의) 여동생, 언니, (여자의)여동생, 아들, 딸, 집, 옷, 칼, 세수, 비누, 검정, 빨강, 회색, 떡, 빵, 빈대떡=녹두전, 복숭아, 고기, 감자, 학교, 컴퍼스, 가위, 자연, 산, 밭, 밤(夜), 낮, 언제=연월일, 돼지, 닭, 토끼, 쥐, 개구리, 원숭이, 여우, 호랑이, 잠자리, 나비, 모기, 벌, 새우, 거북, 체육, 기계, 전기, 공군, 국방, 만세, 명령, 선거, 죽다, 알다, 모르다, 좋다=좋아하다, 나쁘다, 젊다, 가르치다, 배우다, 말하다, 읽다, 쓰다, 그리다, 비싸다, 싸다, 느리다=늦다, 높다, 낮다, 깊다,

17) 『한국수어 & 조선손말 : 남북한 기초생활 수어어휘(2021)』는 가로 18.2×세로 25.5cm, 385쪽, 연장정 칼러판이다. 그 내용은 인사' '가족' '집' '지명·색상' '음식' '학교' '자연·날씨' '요일·시제' '동물' '인체·체육' '직업·경제' '사회일반' '동사·형용사(1)' '동사·형용사(2)' '동사·형용사(3)·조사'의 15과로 이루어져 있다.

18) 이 책의 '일러두기'에서는 『손말학습(2005)』의 설명이 불분명하고 애매한 경우에 정확도를 높이기 위해 『손말사전(2019)』을 참고하여 수록하였음을 밝히고 있다.

19) 『한국수어(한국농아인협회)(2018)』는 가로 18.8×세로 25.9cm, 387쪽, 연장정 컬러판이다. 그 내용은 '인사' '가족' '요일·시제' '자연' '학교(1)' '학교(2)' '교통 및 통신' '인체' '병원' '운동' '종교' '나라' '동물' '식물·성씨·색상' '음식' '직업' '사회 일반' '경제' '흔히 쓰는 단어들' '혼동되기 쉬운 단어들'의 20과로 이루어져 있다.

뜨겁다, 서다, 걷다, 던지다, 달다(甘), 만들다, 준비하다, 키우다, 진찰하다, 조심하다, 약하다, 이기다, -께=-에게

또한, 부분 일치하는 사례는 (35)의 59개(11.87%)이다. 물론, 부분 일치하는 사례들은 일치도의 정도성을 띤다.

(35) 인사, 안녕, 기쁘다, 고맙다, 미안하다, 아기, 청년, 문, 컵, 베개, 숟가락, 젓가락, 평양, 색, 초록, 술, 과자, 간장, 배, 포도, 딸기, 감, 파, 호박, 고추, 생선, 유치원, 중학교, 교장, 교사(教師), 연필, 칠판, 물, 불, 우물, 동물, 동물원, 개, 양, 말, 사슴, 노루, 물고기, 고래, 배구, 기술자, 합작, 알다, 크다, 듣다, 보다, 올라가다, 내려가다, 예쁘다, 아니다, 낳다, 도착하다, 놀다, 구원하다

위에서 제시한 바와 같이 남북한의 기초생활 수어 또는 손말 497개에서 완전 일치하는 사례는 90개(18.11%)이며, 완전·부분 일치하는 사례는 149개(29.98%)이다. [그림 31]의 '검정'은 일치하는 보기이다. 한편, 불일치하는 사례는 위의 (34)(35)를 제외한 348개(70.02%)이다. [그림 33]의 '하양'은 불일치하는 보기이다.

한국수어	조선손말
	
오른 손바닥으로 옆머리를 스쳐 내린다.	오른 손바닥으로 옆머리를 스쳐 내린다.

[그림 32] '검정'의 수어-손말

한국수어	조선손말
	
주먹 쥔 오른손의 바닥이 안으로 향하게 하여 ①지를 세워 구부린 끝으로 치아를 가리킨다.	주먹 쥔 왼손의 바닥이 오른쪽으로 향하게 하여 ⑤지를 세워 ①지에 붙이고, 주먹 쥔 오른손의 ①지를 펴서 끝으로 왼손의 ⑤지 손톱을 가리킨다.

[그림 33] '하양'의 수어-손말

4. 마무리

이상에서 북한의 손말사전을 대상으로 그 성격과 특성을 살펴보았다. 이제까지 논의한 바를 간추리면서 이들 사전의 장점과 문제점, 남은 과제를 기술하기로 한다.

첫째, 이글에서는 북한의 손말사전인 ㉮『손말사전(롱아학교용)(2005)』, ㉯『손말학습(참고자료)(2005)』, ㉰『조선손말(카드)(2009)』, ㉱『손말사전(부문별손말)(2019)』, 그리고 ㉲『한국수어 & 조선손말(2021)』을 논의하였다.

둘째, 각 사전의 성격은 다음과 같다. ㉮는 올림말 2,395개를 그림과 함께 해설을 달았으며 자모순으로 이루어져 있으며, 농경사회에서 사용하던 어휘와 특유의 정치와 군사용어가 상당수 수록되어 있다. ㉯는 일상생활에서 가장 많이 이용하는 올림말 535개를 사진과 함께 해설을 달았으며, 18개 부문으로 짜여있고 각 부문은 빈도순으로 이루어져 있으며, '정치와 군사(83개)'가 가장 많이 이용하는 부문이며, '직업' 부문의 '로동자·농민·사무원·기술자·의사·리발·용해공·목수·재봉·작가'가 주목된다. ㉰는 54장의 트럼프 카드에 손말 106개가 맞선 그림으로 이루어져 있으며, 한글 올림말에 영어를 병기하였다. 올림말의 맞선 그림에서 대립어 34쌍, 유의어 2쌍, 부분-전체어 1쌍은 의미관계를 이루며, 관련어 3쌍, 인사어 4쌍, 수식관계어 8쌍은 의미장을 이루는 반면, '마시다-귀'는 의미적 관련성을 띠지 않는다. ㉱는 북한 최신의 대표적 손말사전으로서 올림말 4,018

개를 사진과 함께 뜻풀이 달았으며, 13개의 부문으로 짜여있고 각 부문은 자모순으로 되어 있으며, 남북한 손말 이질화의 사례로서 문화어에만 존재하는 단어 286개로 '건설(70)' '체육(47)' '교육·정보·국방(27)' 분야가 현저하다. ㉮는『한국수어(한국농아인협회)(2018)』와 ㉯를 대상으로 남북한이 일상에서 사용하고 있는 기초생활 수어어휘 497개를 선정 수록한 것으로, '남북한 수어와 손말 사진', '손말의 해설'로 이루어져 있다.

셋째, 북한 손말사전의 특성은 다음과 같다. ㉮㉯㉰㉱의 북한 손말사전에서 올림말은 두음법칙과 표기법이 다를 뿐 아니라, 표준말과 별개의 형태를 가졌거나 북한에서 생겨난 어휘들이 상당수 포함되어 있다. 또한, 이들 사전의 다의어나 동음이의어는 손말의 관점에서 관련성을 지니지 않으며, ㉮㉯㉱의 '손말이 같은 단어들' 또는 '동의어' 목록은 의미의 외연과 내포가 균등하지 않으며, ㉱의 반의어 목록은 한쪽 또는 한 쌍이 올림말로 수록되지 않은 경우가 많을 뿐 아니라 손말의 반의어는 그 수가 제한되어 있다.

넷째, 북한 손말사전의 장점은 다음과 같다. '연계성'으로서, ㉯는 ㉮의 올림말 '[해설]'과 끄트머리의 '손말이 같은 단어들' 목록 1,369쌍을 공유하고 있으며, ㉱는 '손말사전을 내면서'에서 이전에 출판한 손말사전과 손말참고서의 일련의 부족점을 극복하고 독자들에게 보다 편리하고 풍부한 손말을 보유하도록 하기 위함을 명시하고 있다. '다양한 시도'로서, 올림말의 동작·설명·배치를 ㉮는 그림·해설·자모순, ㉯는 사진·해설·부문별·빈도수, ㉰는 그림·트럼프 카드·맞선 배열, ㉱는 사진·뜻풀이·부문별·자모순으로 구성하고 있는데, 자모순은 이해를 위한 검색용이며 부문별은 표현용이다. '독자 친화성'으로서, ㉮의 '손말사전을 내면서' '일러두기' '차례의 올림말 목록' '손말이 같은 단어들', ㉯의 '머리글' '차례' '찾아보기의 올림말 목록' '손말이 같은 단어들', ㉰의 휴대용 트럼프 카드의 맞선 그림, ㉱의 '손말사전을 내면서' '손말동작표시기호' '조선손말자모편' '조선손말수자편' '차례의 부문별 올림말 목록' '장애자와 관련한 여러 상식들', '손동작에 대한 손모양 제시', '동의어' '반의어' '자모순 찾아보기' 등을 통해 사전편찬의 의도와 목적을 밝히고 독자를 배려하는 기회를 넓히며 피드백을 요청하고 있다. 한편, ㉮는 남북한 기초생활 수어의 현황을 파악하기 좋은 텍스트이다.

다섯째, 북한 손말사전의 문제점은 다음과 같다. '손말사전을 내면서' 및 '일러두기'의 지침과 본문 간의 일관성을 유지하지 못한 경우로서, 올림말의 수치가 ㉮3,000여 개→2,395개, ㉯533개→535개, ㉱4,000개→4,018개이다. ㉮의 '올림말의 뜻풀이'에서 혼돈을 막기 위해 다의어와 동음이의어의 경우 해당 뜻을 밝

힌다고 하였으나 ‘설복하다’와 같이 동음이의어인데 뜻풀이가 없으며 ‘모레’는 두 경우가 아닌데 뜻풀이를 하고 있다. ㉯의 18개 부문의 상위어 수록에 일관성이 없으며, ‘날씨와 자연’에 ‘해’, ‘동물’에 ‘소’가 없으며, ‘몸’에 내장기관만 올려져 있으며, ‘동사’에 ‘좋다[명]’의 오류이다. ㉱의 부문별 올림말은 자모순으로 되어 있지만 ‘건설’ 부문에서 이 원칙이 지켜지지 않으며, ‘반의어’ 목록에서 ‘죄-공’이 자모순 원칙에 어긋난다. 사전의 가독성으로서, 손동작이 흑백사진으로 실린 ㉯, 특히 ㉱의 가독성이 떨어진다. 올림말의 설명으로서, [해설]을 단 ㉮㉯와 달리 ‘뜻풀이’를 단 ㉱는 손동작의 측면에서 정보력이 약하다. 부문별 사전의 부문 명칭이 그 구성원을 망라하지 못하는 경우로서, ㉱의 ‘경제’ ‘교육’ ‘문학’에서 나타난다. 음성언어의 관점으로서, ㉱의 ‘동의어’ 및 ‘반의어’라는 용어와 그 목록은 손말의 관점에서 한계를 지니는데, 손말에서는 동의어가 존재하지 않으며 ‘반의어’ 266개 중 손말의 반의어는 51쌍에 지나지 않으며, 반의어의 짝이 올림말로 결손된 경우가 많다. 또한, ㉮의 ‘손말이 같은 단어들’이 올림말의 크기와 내용이 다른 ㉯㉰에 재수록된 것도 적절하지 않다.

여섯째, 남북한 수어와 손말의 일치도이다. 『한국수화사전(2005)』과 ㉮의 표제어가 같은 1,660개의 완전 일치도는 213개(13%)이며, ㉰는 『한국수어(한국농아인협회)(2018)』와 ㉯를 대상으로 남북한이 일상에서 사용하고 있는 기초생활 수어어휘 497개를 수록한 것으로, 완전 일치하는 사례는 90개(18.11%), 부분 일치하는 사례는 59개(11.87%), 불일치하는 사례는 348개(70.02%)로서 남북한 수어 또는 손말의 이질화가 심각한 상태이다.

일곱째, 남은 과제이다. 음성언어의 『겨레말큰사전』처럼, 『겨레수어·손말큰사전』 편찬이 절실하다. 이 사전뿐만 아니라, 새로운 수어 또는 손말사전의 편찬은 ‘농인’과 ‘손말’의 관점에서 이루질 필요가 있다.

끝으로, 북한 손말사전들을 통해서 북한 손말뿐만 아니라 한국의 수어를 되새기고 새로운 사전편찬의 기대를 하면서, 다음 두 가지 언급을 상기하고자 한다. 18세기 사전편찬학자 사무엘 존슨(Samuel Johnson)의 *Dictionary of the English Language*(1755) 서문의 “살아 있는 언어의 어떤 사전도 완벽할 수 없는데, 그 사전의 출판을 서두르는 동안 몇몇 단어가 싹트고, 몇몇 단어가 사라지기 때문이다(임지룡(1997/2017: 252 참조).”라고 하였다. 『손말학습(부문별손말)(2019)』 ‘손말사전을 내면서’의 “《손말사전》 편집부는 독자들속에서 이번에 편찬한 손말사전》(부문별손말)을 리용하면서 제기되는 불편한 점들과 부족점들에 대하여 편집부로 알려주시기를 바랍니다.”라고 하였다.

참고문헌

국립국어원 (1999).「표준국어대사전」. 서울 : ㈜두산동아.
국립국어원 (2016).「한국수어사전(https://sldict.korean.go.kr/)」.
김은희 (2005).「손말사전 : 참고자료」. 평양 : 조선장애자지원협회.
김태수 (2008). 한국수화와 북한손말의 어휘 비교 :「한국화사전」과「북한손말」을 중심으로. 석사학위 논문, 나사렛대학교.
로경수·리광선·리철 (2019).「손말사전: 부문별손말」. 평양 : 조선롱맹경제문화교류사.
박금순 (2021).「한국수어 & 조선손말 : 남북한 기초생활 수어어휘」. 고양 : 베드로서원.
사회과학연구원언어학연구소 (1992).「조선말대사전」. 평양 : 사회과학출판사.
안태성 외 8 (2005).「손말사전 : 롱아학교용」』. 평양 : 교육도서출판사.
윤병천·정욱찬·고인경 (2016). 조선손말 형태론적 분석.「특수교육저널 : 이론과 실천」, 17권 4호, 137~156.
이난희·최상배 (2017). 북한수어의 수형 분석.「특수교육재활과학연구」, 56권 1호, 77~96.
임지룡 (1997/2017).「<개정판> 인지의미론」. 서울 : 한국문화사.
임지룡 (2018). 한국 수어의 도상적 양상과 의미 특성.「국어교육연구」, 68권, 63～88.
임지룡 (2021a). 수어 의미 관계의 양상과 특성.「한글」, 82권 3호, 809~840.
임지룡 (2021b).「한국수화사전」의 성격과 해석.「국어교육연구」, 77권, 127~164.
임지룡 (2022). 수어의 비유적 도상성.「한글」, 83권 3호, 733~772.
임지룡 (2024). 수어의 인지언어학적 탐구.「한국사회언어학회·담화인지언어학회 2024년 봄 공동학술대회 발표집」, 8~32.
임지룡·석수영 (2015). 한중 수어에 나타난 대립어의 양상 비교.「현대문법연구」, 85권, 87~114.
임지룡·송현주 (2015). 한국 수어의 동기화 양상.「한국어 의미학」, 49권, 59~85.
주수양·리진혁·김성일 (2009).「조선손말(카드)」. 디자인 : 함께 함흥 롱아, 맹인, 장애자 교육쎈터(TOGETHER_Educational Center for Deaf, Blind and Nondisabled Children hamhung e.V.).
최상배·고은지·황윤재 (2019). 음운과 단어 수준에서의 남북한 수어 대조언어학

적 고찰. 「건지인문학」, 26권 1호, 377~400.
최상배·황윤재·고은지 (2022). 한국·북한·일본수어의 대조언어학적 특징. 「특수교육연구소 특수교육논집」, 26권 2호, 1~20.
한국농아인협회 (2021). 「한국수어」. 서울 : 사단법인 한국농아인협회.
한국표준수화규범 제정 추진위원회 (2004). 「일본어-수화사전」. 서울 : 문화관광부·한국농아인협회.
한국표준수화규범 제정 추진위원회 (2004). 「한국어-스페인 수화사전」. 서울 : 문화관광부·한국농아인협회.
한국표준수화규범 제정 추진위원회 (2005). 「한국수화사전」. 서울 : 문화관광부·한국농아인협회.
한국표준수화규범 제정 추진위원회 (2007). 「한국수화사전」(개정판). 서울 : 문화관광부 국립국어원·한국농아인협회.
한국표준수화규범 제정 추진위원회 (2008). 「한국어-미국수화사전」. 서울 : 국립국어원·한국농아인협회.

임지룡
41566 대구광역시 북구 대학로 80
경북대학교 국어교육과 명예교수
전 화: (010) 2254-8710
이메일: jrlim@knu.ac.kr

논문접수: 2024년 11월 30일
수정완료: 2024년 12월 9일
게재확정: 2024년 12월 27일

Sign Languages and Linguistics Convergence Research
Vol. 1. No. 2 (2024) pp.261~286

Deontic and Epistemic Modality in Korean Sign Language*

Ahmed, Mai · Kwon, Soon-Bok
(Pusan National University)

Ahmed, Mai & Kwon, Soon-Bok. 2024. Deontic and Epistemic Modality in Korean Sign Language. ***Sign Languages and Linguistics Convergence Research,*** *1*(2), 261-286. Research on both Korean Sign Language (KSL) and modality realization in the Korean language is relatively new in the field of linguistics. This study aims to investigate modality expressions in KSL. The analysis began by organizing modality expressions in spoken Korean and then searching for their equivalents in Korean Sign Language dictionaries. The results show that a single sign or expression in KSL can convey multiple meanings equivalent to those in spoken Korean. Furthermore, signs conveying modality meanings in KSL have undergone a process of grammaticalization, evolving from lexical signs with similar meanings. For example, we propose that the sign for MAYBE has evolved from the sign for FUTURE, and the sign for MUST has evolved from the sign for PROMISE. Another finding is that the sign for MAYBE plays a significant role in forming signs that convey assumptions and possibilities. Additionally, modality markers in KSL are represented after the verb, reflecting a consistent syntactic structure. In conclusion, while modality markers in KSL are more limited compared to those in spoken Korean, they are still sufficient for sign users to express degrees of certainty, possibility, and meanings of obligation.

Key Words: Korean Sign Language, Epistemic Modality, Deontic Modality, Sign Grammaticization, Modality Expression

---

* This work was supported by the Ministry of Education of the Republic of Korea and the National Research Foundation of Korea (NRF-2020S1A5C2A04093295).

1. Introduction

The Korean Sign Language (hereafter, KSL) is the language used by the deaf community within Korea. KSL is not a translation of the spoken Korean language or even considered to be a part of it. It is rather regarded as its own language form with its own grammatical rules. It has been recognized as an official language by the government in 2016 (Korean Sign Language Act, 2016.2.3). But even before its official recognition, some linguists have shown interest in the language and advocated its right to be acknowledged as a language (Won, 2013; Yeun, 2004; Lim & Song, 2015; Jeong, 2020). Research of KSL materialized through comparing between rules and functions in KSL and spoken Korean (hereafter, SK) (Choi, 2019), or simply analyzing the specific rules of the language (Jeong, 2020; Nam, 2022a; Nam, 2022b etc.).

Stokoe (1960) has advocated the right of sign languages to be recognized as actual languages, supported by others such as Jeong (2020) and Yeun (2021) etc., for it shows difference between sign form and the signified reference especially across different sign languages which shows arbitrariness. Sign languages also show the ability to form new signage to express new concepts and indicate creativity, duality, convey culture, and systematic grammaticalization among other things. These are all characteristics that prove the similarity between sign languages and spoken languages, and are prove that sign language checks the qualifications to be recognized as an independent language form. And about the characteristics of sign languages, Jeong (2020) adds that sign languages, such as KSL, can be characterized by conciseness where it discards functional words that don't convey meaning (particles, conjunctions, endings). It is a visual language which makes use of paralinguistics, and it is an isolating language in the characteristics of word forming (Jeong, 2020).

Wilcox and Shaffer (2006) also talked about how sign language is a natural language that should be considered as the deaf person's native language. They argued that sign languages are not to be mistaken to be mere representations of the spoken language in the same region, that sign languages can differ in grammar and even lexicons and can be traced in relations to other sign languages of different region. For example, American Sign Language is related

to French Sign Language. Wilcox and Shaffer (2006) pointed out that signed languages can be analyzed the same way spoken languages are, phonologically, morphologically and even syntax wise. For a sign is composed of different elements that can change the meaning if changed, and signs can also combine to convey different meanings as if composing a new word.

As for grammar, even though sign languages do not depend on grammar or grammatical particles the same way spoken languages do, especially in the case of KSL where grammatical units are not as widely used as in SK, it cannot be said that sign languages lack grammar and grammar meaning conveying units. Regarding grammaticization of language, Wilcox and Shaffer (2006) noted how a part of grammar develops over time from a lexical, a suggestion that was discussed also in Xavier and Wilcox (2014). To give example for that, they explained how in the American Sign Language the modal auxiliary verb 'can' has developed from the sign for 'strong' which reflects ability. Wilcox and Shaffer (2006) also pointed out how facials or nonmanual articulators play a big part of modality expression. They attributed this to the fact that facial articulations subjectify the meaning as they convey the speakers' attitude towards the meaning articulated by the hands. The face then showcases the stance of the speaker, or signer, towards the proposition, and helps modify the meaning conveyed in the manual sign.

Subjective personal attitude expression towards an utterance is essentially what modality is (Palmer, 1986). And whilst modality and modality markers have been a subject of interest in the study of English linguistics and the American Sign Language, study of modality expression has not had the same amount of attention in Korean linguistics or KSL research. This study could not find any attempts of researching modality expression in KSL. And in this lies the novelty of this paper. As this paper aims to identify the realization of modality expression in KSL and analyze these expressions and characteristics. And as this study relies on KSL dictionaries to identify the modal markers, where these dictionaries relate SK to KSL definitions, the comparison of modality in KSL and SK is a sub discussion of the main idea. This study also attempts to discover the grammaticization process that modality markers in KSL has gone through to become and convey the meaning of a modal marker.

This paper is attempting to answer the following questions:

1. How is epistemic and deontic modality realized in KSL?
2. What are the characteristics of modality expression in KSL?
3. What is the grammaticization process of different modality expressions in KSL?

1.1. Modality

Before starting the analysis, a brief explanation of modality is in order to clarify the analysis objectives of this paper. As mentioned above modality is a subjective expression of the speaker or signer's attitude about their proposition. It is one of the metadiscource techniques; since expressing one's attitude in the discourse conveys the speaker/writer's cognition in that discourse, which is part of what metadiscourse is about (Hyland & Tse, 2004). Alghazo et al. (2021) define metadiscourse as some interpersonal techniques used by the speaker to reflect their position in relation to the discourse or the discourse receiver. With the function of helping the receiver evaluate and organize the utterance information but without adding any semantic value to that information (Alghazo et al., 2021; Hyland, 2019).

Palmer (1981) made the connection between modality expressions and logic of semantics. He explained that the world of possibility or belief is realized by epistemic and deontic modality expressions or what might be called "modal logic", as he points out as a term used by logicians in analyzing possible worlds. Modality then is concerned with possibility and obligation from the point of view or the logic of the speaker. Most linguists agree with this view of modality but with slight difference in definition.

For example, Lyons (1977) sees modality as modification to a statement. He explains that modality is used to modify the degree of commitment of the speaker about the truth of their expressed proposition. Halliday & Matthiessen (2004) also has a similar view to Lyons where they see modality as an interpersonal metafunction of language and defines it as "the intermediate degrees between the positive and negative" (Halliday & Matthiessen, 2004:147), and for them these degrees are varied. Modality in Halliday & Matthiessen (2004) has two main types, modalization (which includes degrees of probability and

usuality), and modulation (which includes degrees of obligation and inclination). van Hoang (2018) explains how Halliday's modalization and modulation relate to traditional semantics modality, by relating modalization to epistemic modality and modulation to deontic modality.

On the other hand, Cornillie & Pietrandrea (2012) have defined modality as discourse functions that have attitudinal qualifications. These attitudinal qualifications can mainly be categorized into epistemic, evidential, and deontic. Deontic modality is concerned with the speaker's point of view about obligation, evidentiality is related to the speaker's grounds when making a statement, and epistemic modality is more concerned with the speaker's certainty about the chances of the affairs they are stating (Cornillie & Pietrandrea, 2012). Which combines the view of Palmer, Lyons, and Halliday of modality as an expression of obligation, truth, and possibility.

And while modality provides a marker of the speakers' attitude and stance, it is not, however, a contributor in the semantic meaning of the utterance per se. It is only a modification of an opinion. Nevertheless, these modifications or interpersonal metafunction markers play a big part in understanding the speaker's interactions and commitment to the proposition.

1.2. Modality in Korean

Pyykonen (2023) explains that modality is a varied lexical stance that includes a wide range of types such as adverbs, adjectives, nouns, verbs, and auxiliaries. Modality in Korean is also expressed through lexical and grammatical markers, according to Park (2010), Korean modality is conveyed using auxiliaries, pre-final and final ending suffixes, adverbs, and verbs.

Modality studies in SK started with Jang (1985) as she cleared the confusion between mood and modality which were always regarded as the same concept in previous studies. Jang (1985) defined modality as the speaker's mental/psychological attitude towards the incident or event. This was followed by the definition of modality in Ko (1986) that stated that modality is the semantic domain that is related to the psychological attitude of the speaker. Studies of modality in SK thereafter adapted these definitions to coordinate with the views mentioned above

about how modality is the attitude of the speaker about their proposition (Eom, 2010; An, 2012). And in any case, all these definitions are dealing with modality as a semantic unit that is not part of the actual accident or event mentioned by the speaker, but only a modification on the utterance that shows the point of view of the speaker.

As for classification of modality markers in SK studies, some research has deviated from the traditional two classifications of epistemic and deontic. Park (2000), for example, has organized Korean modality markers into epistemic, deontic, emotional, and evidential. An (2012) generally explained modality markers in relation to whether the marker was conveying possibility or assurance as in epistemic marker, or whether it was conveying obligation or order as in deontic markers. But in classification, An (2012) largely focused on the classification of markers regarding their construction, meaning if the marker was a phrase construction with a noun or a phrase construction with an auxiliary.

Eom (2010) on the other hand has classified markers into two classes epistemic and non-epistemic, and then categorized markers into further sub-classes as assumption, certainty, and proximity conveying markers for epistemic markers; and hope, capability, intention, volition, obligation, permission, and prohibition conveying markers for non-epistemic markers. These classifications are demonstrated in the following Table 1 which is adapted from Eom (2010). This table does not include the marker '-keyss-', but in Jeon (1999) the comparison of modality marker's degree of probability included '-keyss-' as a modality marker that conveys a stronger degree of probability than '-(u)l kes kathta' for example.

[Table 1] Epistemic and non-epistemic modality markers

Modality	Markers
Epistemic	Assumption: -(u)l kesita, -(u)n/nun/(u)l kes kathta, -(u)l moyangita , -(u)n/nun/(u)l tushata, -(u)n/nun/(u)l tussiphta, -(u)nka/nunka/na pota, -(u)nka/nunka/na siphta, -(u)nka/nunka/na hata, -(u)l ci molunta, -(u)l swu issta Certainty: -(u)n/nun pepita, -ki malyenita
Non-Epistemic	Obligation: -a/eya hata , -a/eya toyta Prohibition: -(u)myen an toyta, -a/esenun an toyta

(Adapted from Eom 2010: 35)

Subcategorization of modality is also connected with the degree of commitment the speaker is demonstrating towards the proposition. Some studies examined modality markers of guessing and assumptions in terms of conveying the meaning of certainty or uncertainty such as Lee (2019), and other studies have sought to determine the degree with which markers convey probability (see Jeon, 1999). And in subcategorizing modality markers into possibility, probability and certainty, studies have tried to determine the degree of a speaker's conviction about the truth or likability of their proposition (Lee, 2019; Park, 2006).

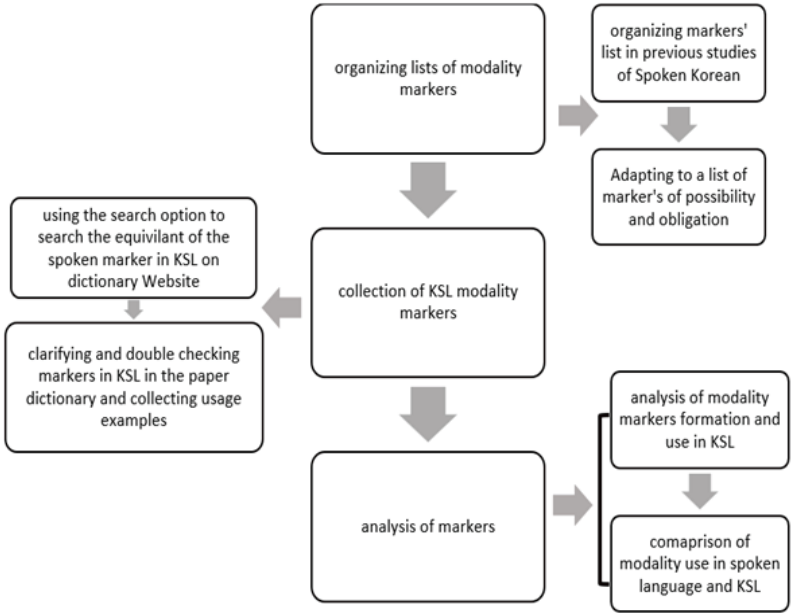
(1) Degree of propositional certainty
  a) Certainty: a Judgement of certainty about the proposition.
  b) Probability: a more than 50% judgement of certainty about the proposition.
  c) Possibility: a less than 50% judgement of certainty about the proposition.
(Park, 2006:81)

Although there is different subcategorization for modality markers, for the sake of simplification the study is following the main categorization of markers into epistemic and deontic markers. This is because the degree of modality marker probability meaning is not a concern of this study but the identification of modality markers in KSL.

2. Method

Figure 1 showcases the process of the analysis. As mentioned above, the aim of this study is to identify modality expressions in KSL. We started with organizing modality markers in spoken language that were analyzed in previous studies. The study then used these SK markers to search for KSL modality markers in dictionaries by using 2 different dictionaries. The study then filtered the expressions that were found as a result of searching for the equivalent expressions of SK markers in dictionaries. The final set of modality expressions identified for KSL are then analyzed to recognize their characteristics and use. And the expressions are also analyzed to try to recognize the grammaticization

process and the origin of the sign marker.



[Figure 1] Analysis process

In Table 1 above Eom (2010) focused on grammatical phrases of modality meaning. The same was in other SK modality markers research, such as Jeong (2018), Shin (2024), Park (2010), Wymann (1996), lee (2004), Hao (2022), and An (2012). This paper has referenced these studies for making a list of modality markers used to convey possibility and obligation. It is very clear that expression of modality in SK relies heavily in grammatical compositions and auxiliaries rather than lexical choices. That is not to say that SK modality expression is only done using auxiliaries and nominal phrases as there are some particles and lexical markers that also convey modal meaning. Reviewing An (2012) confirms that SK modality markers are realized in the forms of verbs, adverbs, grammatical particles, nominal phrases and auxiliaries. After reviewing all the studies mentioned above, we adapted the list in Table 2 for analysis.

[Table 2] List of Epistemic and deontic modality markers in SK

Modality	Markers
Epistemic	-(u)l kesita, -(u)n/nun/(u)l kes kathta, -(u)n/nun/(u)l moyangita , -(u)n/nun/(u)l tushata, -(u)n/nun/(u)l tussiphta, -(u)nka/nunka/na pota, -(u)nka/nunka/na siphta, -(u)nka/nunka/na hata, -(u)l ci molunta, -(u)l swu issta , -(u)n/nun pepita, -ki malyenita, -neun seymita, -(u)l cwul alta , -(u)l ppenhata, -(u)l ttalumita, -keyss-, -li-, chwuchwukhata, sayngkakhata, mitta, thullimepsta, hwaksilhata, kacenghata, kanunghata, kanungsengi issta/epsta, cengmal, pantusi, hwaksilhi, ama, cimcakkhentey, mwullon, pwunmyenghata, tangyenhata, talumepsta
Deontic	-a/eya hata , -a/eya toyta, -(u)myen an toyta, -a/esenun an toyta, -(u)l theita, -nun pephata, kkok, -yakeyssta, pantusi

In a preliminary analysis we confirmed that in comparison to SK, KSL was not as enriched in grammar particle use. As shown in Table 3,4 the grammatical particles and phrases of modality markers in KSL are not as developed in use as in SK. So, by adding more lexical expression of modality we aimed to cover as much of the domain as possible.

After organizing the markers in spoken language, we searched for the equivalents in KSL using two KSL dictionaries, the Korean Sign Language Dictionary by the National Institute for Korean Language (hereafter, NIKL), and the Korean Sign Language Dictionary by Kim et al. (2005).

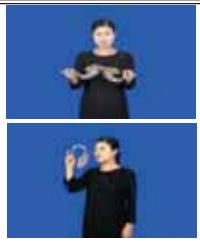
In the online dictionary the terms and expressions were searched for using the search bar and then we looked for the exact meaning of the modality equivalent in the search results. The search of terms in the paper dictionary was done using traditional dictionary search methods by looking for the word or even the grammatical particle in the section of words starting with the same letters. However, using two dictionaries for research has posed a problem. That is because the definitions and signage findings in the two dictionaries were not identical. We could find more data for analysis in the paper Kim et al. (2005) dictionary but some of these data were not reflected in the National Institute for Korean Language online search. Some of the signs were even conveyed differently in both dictionaries. Table 3 showcases these differences between the two dictionaries. Still this paper is considering the findings of the two dictionaries in the analysis.

3. Results

Table 3 presents the result of modality marker search in the KSL dictionaries. The presented data in the table offers a comparison of modality expressions between SK and KSL. This comparison clearly shows how modality expressions are more diverse and defined in SK compared to KSL. KSL modality expressions are more limited especially considering many of the compound expressions which are essentially a main part modifying different lexical units as discussed in the following analysis.

[Table 3] Expression of modality in KSL

Epistemic Marker	Sign	Epistemic Marker	Sign
-l (-(u)l kesita)**		ama***,-(u)l kesita*, -keyss-(chwuchwuk)*	
'aphulo' + 'ama'			
+			
deutada*, tussiphta*		?-keyss-**	
			
+			
chwuchwuk** cimcak**		-(u)l swu issta*, kanunghata* swu**	
sayngkak+ ama			
+			

Epistemic Marker	Sign	Epistemic Marker	Sign
kaceng** phyengka+ama + thullimepsta**		alta***	
pwunmyenghata*,**, hwaksilhata*,**, tangyen*,thullimepsi*		mitta*,**	
tangyenhata**,mwullon** (tangyenhata2**)		sayngkak*,**	
		bbonhada*	

Deontic Marker	Sign	Deontic Marker	Sign
-a/eya (kkok)*,**		toyta*,**	
pantusi** ‘matta’+ ‘yaksok’		antoyta*,**	

Note: *The National Institute for Korean Language dictionary, **Kim et al. (2005) dictionary (signs’ illustrations are collected from the National Institute for Korean Language dictionary)

3.1. Epistemic and deontic modality expression realization in KSL

Table 3 showcases modality expressions in KSL. A comparison of Table 2 and Table 3 proves that modality expression in SK utilizes grammar particles more than KSL. In KSL the expression of modality is relying more on lexicals and their placement in the sentence to convey the meaning of attitude towards the statement. That is not to say that grammatical particles are not used in KSL, but in comparison to spoken language the latter uses more combinations of ending particles together with auxiliaries and action nouns to make the modal expression. Especially for deontic modality expressions, except for '-a/eya hata' MUST the reliance is only on two verbs to convey the meaning of obligation or allowance 'toyta' CAN/MAY and 'antoyta' MUST NOT and the adverbs 'pantusi' SURELY and 'kkok' MUST.

Modality markers are also more varied in spoken language than it is in KSL. This may be due to the fact that it takes more time to convey an expression using a sign which makes sign language more oriented towards reduction and time saving. Expressions using sound takes less time to convey and the population that uses the spoken language is more than it is in KSL's case which gives room for innovation and diversity of expression use for spoken language. Expressions of guessing the possibility of a statement for example can be done using 'chwuchwukhata, -(u)l kes kathta, ama, -keyss-, -(u)l ci molunta, kacenghata, -(u)l kesita, cimcakkhentey, kanunghata, -(u)n/nun/(u)l moyangita , -(u)nka/nunka/na pota, -l li epsta etc.', but the equivalent in KSL only uses 'ama, -keyss-, kaceng, -(u)l kesita, cimcak, kanung, pota, li', but most of these meanings are expressed by combining the sign for 'ama' with other noun signs to convey the meaning in KSL. Combining signs to convey one meaning is more time consuming, requires memory space to produce the expression through the different signs, and more time to convey one meaning through two or more signs.

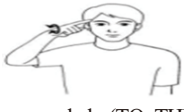
3.2. Characteristics of modality expressions in KSL

3.2.1. Epistemic modality markers

Table 4 points out an important characteristic in the epistemic modal

markers' composition. That is, the sign for 'ama' MAYBE plays a big part in conveying epistemic modality. For example, conveying the 'tushata/tussiphta' SEEM meaning (as demonstrated in the NIKL dictionary) is done combining the sign for 'sayngkakhata' TO THINK and 'ama' MAYBE. In the NIKL dictionary the meanings '-keyss-, -(u)l kesita, and ama' MAYBE are all demonstrated by one sign which is the sign for 'ama' MAYBE. Also, in Kim et al. (2005)'s dictionary the sign for 'kaceng' SUPPOSITION ('phyengka' JUDGE + 'ama' MAYBE), 'chwuchwuk' ASSUME and 'cimcak' GUESS ('sayngkak' THINK + 'ama' MAYBE), and the sign for 'l' as part of '-(u)l kesita' ('aphulo' TO THE FRONT /FUTURE + 'ama' MAYBE) all have 'ama' as part of the combination. Table 4 organizes illustrates the placement of 'ama' MAYBE in these construction where 'ama' MAYBE is always the last part of the sign.

[Table 4] Compound epistemic modality sign composition

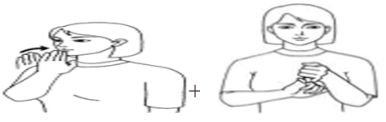
Marker	Sign
-l (-(u)l kesita) ** (MAYBE)	 +  aphulo (FUTURE) + ama (MAYBE)
tushata*, tussiphta* (SEEM)	 +  sayngkak (TO THINK) + ama (MAYBE)
chwuchwuk** cimcak** (GUESS)	 +  sayngkak (TO THINK) + ama (MAYBE)
kaceng** (ASSUME)	 +  phyengka (TO JUDGE) + ama (MAYBE)

Note: *The National Institute for Korean Language dictionary, **Kim et al. (2005) dictionary (signs' illustrations are collected from the National Institute for Korean Language dictionary)

3.2.2. Deontic modality sign characteristics

As for deontic modality expressions, as shown in table 3 again, SK has a variety of expressions to convey different degrees of obligation and prohibition or permission whereas KSL is somewhat limited in Deontic modality expressions. Also, SK deontic expressions rely on grammatical particles such as endings to convey the meaning, but this could not be seen in KSL case. For permission KSL uses two expressions 'toyta' MAY/ CAN and for prohibition 'antoyta' MUST NOT/ MAY NOT. Table 5 also demonstrates the sign composition characteristic discussed above. The sign for 'pantusi' SURELY is conveyed using the two signs of 'dangyeon' UNDOUBTEDLY/ 'sasil' TRUTH/ 'matta' CORRECT and '-a/eya', 'kkok' MUST/ 'yaksok' PROMISE. This indicates that the sign for PROMISE or MUST plays part in conveying the deontic modality meaning of obligation just as 'ama' MAYBE does the same for the epistemic modality meaning of possibility.

[Table 5] Deontic modality sign

Marker	Sign
a/eya[*] [**], kkok[*] [**]	
pantusi[**]	 'sasil' TRUTH + 'yaksok' PROMISE
toyta[*] [**]	
antoyta[*] [**]	

Note: [*]The National Institute for Korean Language dictionary, [**]Kim et al. (2005) dictionary (signs' illustrations are collected from the National Institute for Korean Language dictionary)

3.3. Modality markers' syntactic characteristics

Sign combination here is not arbitrary it seems, meaning that each feature in the combination leads to the eventual meaning to be conveyed through the combination. It seems also that in KSL the factor of modality (the factor that expresses commitment or possibility) is usually expressed later in the combination form. As in 'ama' being expressed in the second half of the combinations, and the expression of necessity in 'pantusi' SURELY is in the latter part of the sign. But perhaps this might be explained through the grammatical rules of KSL.

(2) a. INDEX1 APPLE EAT POSSIBLE
'I can eat the apple.'
b. * INDEX1 APPLE POSSIBLE EAT
c. * INDEX1 POSSIBLE APPLE EAT
(Jo et al., 2022:104)

(3) [나][자동차][새롭다][자동차오다][친구][빌려주다][안되다][아깝다]
[na][catongcha][saylopta][catongchaota][chinkwu][pillyecwuta][antoyta][akkapta]
(As adapted from Nam, 2022b:16)

Indeed Jo et al. (2022) discussed how modals are always to follow the verb in KSL. As shown in the example above adapted from the same paper the auxiliary POSSIBLE can only follow the main verb, here TO EAT, in the sentence. If the modal auxiliary placement is changed, even to a placement before the verb, the sentence is incorrect. In the example from Nam (2022b) the modal 'antoyta' MUST NOT / SHOULD NOT is also following the verb to modify the meaning of the proposition. This is reflected in sign combination as well, for 'ama' MAYBE and 'kkok' MUST/ '-a/eya' MUST are markers of modal meanings and therefore they modify the meaning of the verb after expressing it. For example, 'chwuchwukhata' To ASSUME/GUESS (to put something off and think about it)[1]. TO ASSUME 's meaning is a modification

1) Think about something and put it into consideration (Standard Korean Dictionary (stdict.korean.go.kr))

of modality by the expression of uncertainty on the verb ‘to think’, and therefore the sign for ‘chwuchwuk’ ASSUME is expressed by the sign of ‘sayngkak’ THINK followed by ‘ama’ MAYBE to convey the uncertainty factor to be attached to the meaning of To Think.

Özkul (2019) has also discussed epistemic and deontic marker placement in Turkish Sign Language. While studying the modal marker NECESSITY and its ability to convey both epistemic and deontic meaning in different contexts, the study has also demonstrated the syntactic characteristics of modality markers. According to Özkul (2019), in Turkish Sign Language modal markers follow the verb to modify it’s meaning, just as the case in KSL. For example, in the sentence “MOTHER FATHER NOTIFICATION GIVE NECESSARY” (It is necessary to notify mother and father) (Özkul, 2019:557) the modal NECESSARY follows the verb GIVE to convey the deontic meaning of obligation.

In Shaffer (2004) however the discussion for modality markers in ASL showed different syntactic characteristics compared to KSL and Turkish Sign Language. In Shaffer (2004) the examples for deontic modality markers showed that the markers precede the verb, as in “[1st GRADE]-top DECIDE MUST PUT PUBLIC SCHOOL” (When he got to first grade I decided I had to put him in public school) (Shaffer, 2004:183) where MUST precedes the verb PUT. In the case of epistemic modality, the modal markers followed the proposition to modify it as a whole not just the verb. In example “[LIBRARY HAVE DEAF LIFE]-top [SHOULD]-BF/HN (The library should have Deaf Life/ I’m sure the Library has Deaf Life)” (Shaffer, 2004: 190), the modal SHOULD modifies the sentence “LIBRARY HAVE DEAF LIFE” not just the verb HAVE.

Salazar-García (2018) also discussed modality marker placement in Spanish Sign Language (LSE). Salazar-García (2018) pointed out that epistemic modality markers’ placement in a sentence depends on the marker. For example, subjective markers such as I SURE and I THINK are placed before the proposition they modify (I SURE, HERE SMOKE FREE -> ‘I am sure smoking is allowed here’ (Salazar-García, 2018:396)). Other modality markers follow the verb at the end of the sentence (TOMORROW RAIN CAN -> ‘ it is probable/ possible it will rain tomorrow’ (Salazar-García, 2018:400)), TOMORROW

BROTHER MINE SKI IMPOSSIBLE. HE WORK MUST -> 'It is impossible that my brother will ski tomorrow. He must work.' (Salazar-García, 2018:404)). This is however a very general explanation of the placement of modality markers in LSE. The placement of modality expressions depends on the orientation of the marker to the event and participants, and its objectivity or lack of in its meaning.

In SK, the placement of modal markers depends on the marker's function in a sentence. A marker such as 'ama' is an adverb that modifies the whole sentence and therefore it is placed in reference to the whole proposition rather than the main verb. To answer the question "kiltongi eti kasseyo? (where did Kildong go to?)" we can use "ama cipey kasseyo (maybe he went home)" or "cipey kasseyo ama (went home maybe.)" and both answers are correct. That is not to say that all modality markers in the spoken language follow this rule, but the grammatical markers such as endings and auxiliary verbs' placement are specially connected to the main verb in the sentence. Much like KSL combinations with auxiliary verbs (such as −(u)nka pota, -(u)lkka siphta etc.) and bound nouns (as in-(u)l kesita, -(u)l moyangita) are placed after the main verb of the sentence, and for pre-final endings (-a/eya, -keyss-) they have to be attached to the main verb. As the following example demonstrates the modality expression is conveyed by the grammatical unit following the verb and modifying its meaning:

(4) a. kwuki kkulhkeysse [Soup(subject) boil(verb) +-keyss- (modal)]
b. kwuki kkulhul kesiya [Soup(subject) boil(verb) + -(u)l kesita (modal)]
c. kwuki kkulhul kes katha [Soup(subject) boil(verb) + -(u)l kes kathta (modal)]
d. kwuki kkulhul moyangiya [Soup(subject) boil(verb) + (u)l moyangita (modal)]
e. kwuki kkulhul tushay/tussiphe [Soup(subject) boil(verb) + -(u)l tushata/teutsibda (modal)]
f. kwuki kkulhul pephay [Soup(subject) boil(verb) + -(u)l pephata (modal)]
g. kwuki kkulhulci molla [Soup(subject) boil(verb) + -(u)l cito molunta (modal)]

h. kwuki kkulhnunka pwa [Soup(subject) boil(verb) + -nunka pota (modal)]
(Adapted from An, 2012:221)

In this manner KSL shows similarity to SK in that the modification of the auxiliary comes after the action to modify the meaning.

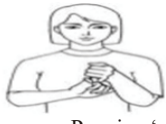
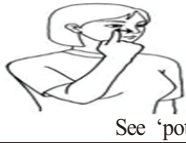
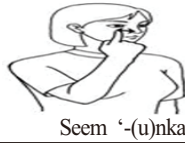
3.4. Grammaticization of modal markers in KSL

In KSL, signs can convey more than one meaning of SK, which may seem like SK has more diversity of modality expression than KSL. For example, as mentioned above, the meaning '-keyss-', '-(u)l kesita', and 'ama' are all expressed using one sign (ama) following the demonstration of the NIKL dictionary. And in both dictionaries the sign for 'hwaksil' CERTAIN and 'pwunmyeng' CLEAR is the same for both meaning, so is the sign that conveys the meanings for 'kkok' MUST, and '-a/eya' (which is the same sign for 'yaksok' PROMISE). This part is different in the two dictionaries though, but the sign for conveying the meaning of 'tangyen' UNDOUBTEDLY and 'sasil' TRUTH is the same in Kim et al. (2005), whereas both meanings are conveyed using different signs in the NIKL. The sign of 'tangyen' UNDOUBTEDLY is the same as the sign for 'mwullon' SURELY in NIKL.

This again can be explained by the grammaticization process that happens to lexical signs before they are used to convey grammatical meaning as discussed in Wilcox and Shaffer (2006). A sign starts as a signal for a lexical meaning and then it may acquire some modification to add a grammatical feature, such as modality, to the proposition. Wilcox and Shaffer (2006) explained that the sign for STRONG has developed to the sign conveying the auxiliary verb CAN. This grammaticization process could be used to explain how one sign conveys different meanings, as in the lexical sign is seen to be under the process of developing grammatical meaning. The sign for 'yaksok' PROMISE developed to be used for adverb 'kkok' MUST and grammatical ending particle '-a/eya'. The sign for 'kanung' POSSIBLE as well developed to convey 'swu', and the one for 'pota' To SEE developed to convey the auxiliary 'pota' SEEMS/ PERHAPS. The origin of the sign 'ama' MAYBE is likely a modification to the sign

'milay' FUTURE  or the sign  by slightly bending the forefinger and the middle one . This modification developed to convey meanings of probability or uncertainty about a proposition or an event that may happen in the future. This is conveyed in modality markers such as '-keyss-' and '-(u)l kesita'.

[Table 6] The development of lexical sign to convey grammatical modality

Meaning	Lexical sign	Modal sign
Perhaps	 Future, the day after tomorrow	 Maybe, perhaps, will, might
Can	 Capable/Possible 'kanung'	 Can, could 'swu'
Must	 Promise 'yaksok'	 '-a/eya', 'kkok' MUST
Should	 Doable 'toyta'	 should '-a/eyaci'
Likely	 See 'pota'	 Seem '-(u)nka/na pota'

4. Discussion

This paper aimed to investigate expressions of modality in KSL. This was attempted by first organizing modality markers in SK and then searching for their equivalents in KSL using KSL dictionaries. A comparison of modality expression in SK and KSL was done to further investigate the characteristics of KSL.

The main difference between SK and KSL in modality is that modality in SK relies heavily on grammatical phrasing and grammatical particles, whereas this particular domain of language is not as well developed in KSL. As Jeong, 2020 has discussed, KSL doesn't use particles or endings to clarify the sentence but rather relies on the lexical content and the order of the sentence. The conciseness of KSL that Jeong (2020) has suggested is indicated also in the lack of variety of modality expressions in KSL.

KSL signs can also convey more than one meaning equivalent in SK, with some of them, such as  that can convey 13 different meanings equivalent in the spoken language. This fact has been discussed in Nam (2018) where he analyzed the polysemy of signs and the formation of idiomatic expressions in KSL. Although Nam (2018) discussed the polysemy of a sign in regard to modifications done on the sign whether it being manual or nonmanual modification, the data we have gathered from the NIKL dictionary suggests that one sign can signal different meanings without any modification done on it, on the condition however that these different expressions are similar in meaning (such as myenghwakhata, cenghwakhata, ttokttokhata, ttwulyeshata, myenglyohata, myengpaykhata, pwunmyenghata, senmyenghata, hwaksilhata etc. which are all different expressions that convey the meaning "clear" or "accurate").

As for sentence order, Jo et al. (2022) have discussed how in KSL modality auxiliaries are placed behind the main verb in the sentence, this is not however clear if it is a rule for all modal expressions in KSL. In SK the modal expression is added to the sentence in the order of its grammatical

characteristics, meaning if the modal is an auxiliary verb or an ending particle it is added after the verb, but if it is an adverb it is added before the verb or even in the beginning of the sentence according to SK sentence order rules.

The process of grammaticization that a sign may go through to develop a grammatical meaning is another explanation for a sign conveying different meanings. This process however is not limited to sign language, in SK for example the particle '-keyss-' is used to convey different meanings that include volition, possibility, and assumption in addition to marking for a future tense (Min et al., 2019; Bang et al., 2019; Yang, 2020). Yang (2020) explained that '-keyss-' has been discussed in research as a grammatical particle that realizes future tense before studies of '-keyss-' has started to realize it as a modal marker. This suggests that '-keyss-' has undergone a process of developing into a modal marker (albeit '-keyss-' being already a grammatical particle) until it has reached the stage of being acknowledged as a marker conveying the meaning of assumption or guessing as Yang (2020) has found out through a survey about the archetypal semantic meaning of '-keyss-'. This process of modal grammaticization can be seen in the similarity of the sign for 'milay' FUTURE or 'more' THE DAY AFTER TOMORROW/FUTURE and the sign of 'ama' MAYBE/PERHAPS, or the similarity between the sign 'kanung' POSSIBLE and the sign for 'swu' CAN etc.

In the case of grammaticization, Wilcox and Shaffer (2006) have discussed that facial expressions play a part in conveying modality meanings. How a raising of an eyebrow or a movement of eye direction help express the signer's point of view towards the event they are conveying. In searching for modality signs in KSL dictionaries though, this study has not encountered any explanation of special facial expression accompanying the signs shown in the tables. The description of the sign in the dictionaries that were referenced in this study focused mainly on the manual components not the non-manual ones such as facial expressions. This, however, was one of the limitations of this study, depending on the description of signs made by the dictionary and not analyzing the sign in actual use by a signer. Therefore, in future study an analysis on a corpus of actual sign language use is needed in order to recognize the non-manual articulators that may add to the composition of the modal signs.

In conclusion, modality marker expression in KSL is somewhat limited in the variety of markers but it is sufficient to convey the modification of possibility and obligation on a proposition. A KSL native can express different degrees of commitment to modify their meaning. These modifications of modal markers however need to be analyzed more in terms of sentence order realization and frequency of use. It is important to approach modality as a part of pragmatics and therefore analysis of modal markers must be covered also in actual use through corpus analysis of KSL. Although this study was to investigate modal expressions in KSL, an analysis of a KSL corpus could have added significantly to the findings of this paper and the analysis of modal marker realization rules, and the determination of whether or not non-manual factors play part in modality expression in KSL. Henceforth, future research on modality expression in context within KSL is essential to deepen understanding of this topic.

References

Alghazo, S., Al Salem, M., & Alrashdan, I. (2021). Stance and engagement in English and Arabic research article abstracts. *System, 103*, 102681.

An, J. H. (2012). *Korean education and modal expression.* Seoul: Hankookmunhwasa.

Bang, M. H., An, H. K., Shin, S. I., Oh, H. S., Lee, Y. K., & Kim, T. K. (2019). *Language and Media.* Seoul: Mirae N Books.

Choi, H. N. (2019). A study on the time metaphor of the Korean Sign Language - Focusing on comparison with the Korean language. *Wonkwang Journal of Humanities, 20*(1), 145-188.

Cornillie, B. & Pietrandrea, P. (2012). Modality at work. cognitive, interactional and textual functions of modal markers. *Pragmatics, 44*(15), 2109-2115.

Eom, N. (2010). *A study of Korean modal expression education.* Seoul: Hankookmunhwasa.

Halliday, M. & Matthiessen, C. (2004). *An introduction to functional grammar*

(3rd edition.). London: Routledge.

Hao, S. (2022) A comparative study on the expression of probability in Korean and Chinese epistemic modality. *Korean Language & Literature, 120,* 159-189.

Hyland, K. & Tse, P. (2004). Metadiscourse in academic writing: A reappraisal. *Applied Linguistics, 25*(2), 156-177.

Hyland, K. (2005). *Metadiscourse: Exploring interaction in writing.* London: Bloomsbury Publishing.

Hyland, K. (2019). *Metadiscourse: Exploring interaction in writing* (2nd edition.). London: Bloomsbury Academic.

Im, J. R. & Song, H. J. (2015). Motivation in Korean Sign Language. *Korean Semantics, 49,* 59-85.

Jang, K. H. (1985). *A study on the modal category of modern Korean language.* Seoul: Top Publishing.

Jeong, H. G. (2018). A study on the probabilistic semantic map of deontic modality: Based on the parallel translation texts. *Language and Linguistics, 78,* 127-148.

Jeon, N. Y. (1999). The semantic function of *{-na boda/-l moyangida/-l keot katta/-l keoshida/-kyeotta}*. *Korean as a Foreign Language Education, 23*(1), 169-198.

Jeong, S. J. (2020). Ein Vergleich zwischen der deutschen und koreanischen Gebardensprache - anhand von Satztypen und Wortstellung. *Koreanische Gesellschaft Fur Deutsch Als Fremdsprache, 47,* 222-246.

Jo, J., Lee, B. K., & Choi, Y. (2022). Word order and clause structure in Korean Sign Language. *Studies in Generative Grammar, 32*(1), 97-152.

Ko, Y. G. (1986). Relation between mood and modality. *New Studies of Korean Linguistics.* Seoul: Top Publishing Co.

Lee, J. (2019). A study on pragmatic features of Korean speculative expressions. *Bilingual Research, 74,* 417-445.

Lee, P. (2004). Categorization and syntagma of modal expression in the predication. *Discourse and Cognition, 11*(3), 131-152.

Lyons, J. (1977). *Semantics.* Cambridge: Cambridge University Press.

Min, H. S., Shin, M. S., Oh H. A., Lee J. E., An, J. H., Cho, J. S., & Park,

J. H. (2019). *Language and media.* Seoul: Chunjae Education.

Nam, K. H. (2022a). The meaning and teaching methods of Korean Sign Language polysemous word. *The Study of Education for Hearing-Language Impairments, 13*(2), 1-18.

Nam, K. H. (2022b). A study of word order iconicity in Korean Sign Language. *Journal of the Society of Korean Language and Literature, 96*, 5-29.

Özkul, A. (2019). Deontic and epistemic necessity in Turkish Sign Language. *Poznań Studies in Contemporary Linguistics, 55*(3), 543-577.

Park, H. (2010). Acquisition of modality by L2 learners of Korean. *Studies in Modern Grammar, 60,* 233-261.

Park, J. Y. (2006). *Study of the Korean modality endings.* Seoul: Taehagsa.

Palmer, F. R. (1981). *Semantics* (2nd edition). Cambridge: Cambridge University Press.

Palmer, F. R. (1986). *Mood and modality.* Cambridge: Cambridge University Press.

Pyykonen, M. (2023). Epistemic stance in written L2 English: The role of task type, L2 proficiency, and authorial style. *Applied Corpus Linguistics, 3*(1), 100040.

Salazar-García, V. (2018). Modality in Spanish Sign Language (LSE) revisited: A functional account. *Open Linguistics, 4,* 391-417.

Shaffer, B. (2004). Information ordering and speaker subjectivity: Modality in ASL. *Cognitive Linguistics, 15*(2), 175-195.

Shin, H. (2024). Use of epistemic modality in creating suspense in the purloined letter. *Studies in Humanities and Social Sciences, 25*(1), 243-265.

Stokoe, W. C. (1960). *Sign language structure: An outline of the visual communication systems of the American deaf.* Burtonsville: Linstok Press.

van Hoang, V. (2018). “Bánh trôi nước” and three English versions of translation: A systemic functional comparison. *VNU Journal of Foreign Studies, 34*(4), 1-35.

Wilcox, S. & Shaffer, B. (2006). Modality in American Sign Language. In William Frawley (Ed.), *In the expression of modality,* (pp.207-238), Berlin: Mouton De Gruyter.

Won, S. O. (2013). *Sign language.* Seoul: Communication Books.

Wymann, A. (1996). *The expression of modality in Korean.* Ph.D. Dissertation. Bern: University of Bern.

Xavier, A. N. & Wilcox, S. (2014). Necessity and possibility modals in Brazilian Sign Language (Libras). *Linguistic Typology, 18*(3), 449-488.

Yang, S. H. (2020). Cognitive semantic approach of time expression educational contents -Focusing on *'-Gess-'-*. *The Studies of Korean Language and Literature, 66,* 267-300.

Youn, B. C. (2003). *The study on the linguistic characteristics of non-manual signals in Korean Sign Language.* Ph.D. Dissertation. Daegu University.

Youn, S. M. (2021). Korean Sign Language (KSL) is another Korean language. *Korean Language and Literature, 78,* 121-144.

Ahmed, Mai Abubakr Elsedik Mohamed
2, Busandaehak-no 63beon-gil, Geumjeong-gu, Busan, 46241, South Korea
PhD student, Dept. of Linguistics College of Humanities,
Pusan National University
Phone: +82-051-518-1518
E-mail: ahmed.mai@pusan.ac.kr

Kwon, Soon-Bok
2, Busandaehak-no 63beon-gil, Geumjeong-gu, Busan, 46241, South Korea
Professor, Dept. of Language & Information College of Humanities,
Pusan National University
Phone: +82-51-510-2003
E-mail: sbkwon@pusan.ac.kr

Received on Nov 30, 2024
Revised version received on Dec 18, 2024
Accepted on Dec 27, 2024

Sign Languages and Linguistics Convergence Research
Vol. 1. No. 2 (2024) pp.287~330

Blending in Spoken/Written Languages and in Sign Languages*

Brdar-Szabó, Rita · Brdar, Mario
(Eötvös Loránd University · University of Osijek)

Brdar-Szabó, Rita & Brdar, Mario. 2024. Blending in Spoken/Written Languages and in Sign Languages. ***Sign Languages and Linguistics Convergence Research,*** *1*(2), 287-330. The division of morphological processes into two general categories in spoken/written languages, into concatenative and non-concatenative ones, can with some due reservations also be applied to sign languages, assuming there is a certain degree of correspondence between sequentiality and concatenative process on the one hand, and between simultaneity and non-concatenative patterns on the other. This correlation is far from being perfect, but largely holds. Both concatenative and non-concatenative morphology is present in sign languages, but there is, generally, far more non-concatenative morphology than in spoken/written languages. We might hypothesize that we should therefore expect to see more lexical blending as a non-concatenative word-formation pattern in sign languages than in spoken/written languages. In view of the available data, examples of blending in sign languages are relatively rare, especially when it comes to its canonical forms. What is considered as a frequent type of blending in sign languages is very similar in nature to multimodal constructions involving text and image integration. This phenomenon is brought here into connection with finger-spelling and initialization in sign languages.

Key Words: Linearity, Sequentiality, Simultaneity, Lexical Blending, Text-image Integration, Metonymy

---

* This publication is a result of the project PID2023-146582NB-I00, funded by MCIU/AEI/10.13039/501100011033/FEDER, UE.

1. Introduction

1.1. Linearity/sequentiality vs. non-linearity/simultaneity

De Saussure (1916/1972, p. 67) posits two "primordial characteristics" of linguistic signs. In addition to the arbitrariness of the link between the signifier and the signified, he also mentions the linearity of the signifier. This feature of language is for him fundamental:

> 'While [the linear nature of the signifier] is obvious, apparently linguists have always neglected to state it, doubtless because they found it too simple; nevertheless, it is fundamental, and itsconsequences are incalculable.' (1916/1972, p.70)

It is obvious that a speaker can utter just a phoneme at a time, not two or more, putting them into s string to produce just a single word at a time, etc. Conversely, listeners recognize certain sounds as phonemes in the same fashion, one by one, and segment a string of phonemes into just a single word at a time. Similarly, we can also produce letters in writing in a sequence, one by one, even if they may be linked by ligatures. Readers, on the other hand, also recognize letters linearly, one by one, whether from left to right, from right to left, from above downwards, or the other way around, as in a word sleuth puzzle.

This ubiquity of linearity or sequentiality is the base for assuming syntagmatic relationship in language. De Saussure was, nevertheless, also aware of the other basic dimension, viz. paradigmatic relationship. There is, however, an important difference as far as these two dimensions are concerned. The former, the syntagmatic ones, can be observed in presentia. The latter, the paradigmatic ones are always in absentia, i.e. they are only potentially or virtually there, and cannot be a part of a linguistic utterance as such.

Linearity or sequentiality is the precondition for isomorphy as a transparent, one-to-one relation between a complex expression and its meaning, i.e., between word forms and concepts (Geeraerts, 1989, p. 91), e.g., when a suffix or a

prefix has only one meaning. Compositionality in language also presupposes linearity. We do not find only isomorphy in language, but also a considerable amount of anisomorphy, which is a lack of one-to-one correspondence, resulting in polysemy and homonymy, and consequently diminishing compositionality. Anisomorphy is in certain cases the result of non-linearity, i.e. of simultaneity. Languages come with a mix of the two, in varying proportions. There is a natural tendency in human languages to strive for isomorphy, but this comes with a price. Isomorphy increases the burden on storage, as it leads to an increase of lexical and sublexical items that have to be stored in the mental lexicon. Anisomorphy, on the other hand, relieves this burden but increases the cost of the processing of ambiguity.

The publication of Stokoe (1960) marks the beginnings of the recognition of sign languages as fully-fledged natural languages exhibiting their own internal structure. In this ground-breaking work, he made it clear that sign languages are very similar to spoken/written language in that they also exhibit, among other things, a phonological component. Signs are broken down into features that are conducive to a systematic description by means of three parameters: handshape (DEZ), location (TAB) and movement (SIG). He listed 19 handshapes, 12 locations and 24 movement. In most current accounts of the phonology of sign languages, two more parameters, palm orientation and non-manual signals or features (NMS or NMF) are added. Altogether, five parameters are distinguished, but timing is also considered to be a formational parameter in some approaches. Although he draws parallels between spoken/written languages and sign languages at all levels of analysis (with some due differences of course, he thus suggests the terms chereme and allocher as the equivalents of phoneme and allophone, respectively, a suggestion that was later more or less disregarded), he is aware of a fundamental difference concerning the organization of the two:

> The sign-morpheme, however, unlike the word, is seen to be not sequentially but simultaneously produced. Analysis of the sign cannot be segmented in time order but must be aspectual. (Stokoe 1960, p. 45)

As a consequence of this, each sign is a bundle of values for the above

features realized simultaneously.

Discussing this point of difference, Klima and Bellugi (1979), stress that

> ... the lexical items of ASL and all other primary sign languages we know of appear to be constituted in a different way from those of spoken languages: the organization of signs is primarily simultaneous rather than sequential. (1979, p. 39)

They, however, also note the sequential nature of finger-spelling but this does not undermine the simultaneous character of sign languages as wholes.

Liddell (1984) argues against the view that sign languages are strictly simultaneous at the sublexical level. His empirical analyses suggest that it is possible to distinguish between holds and movements that would roughly correspond to consonants and vowels, respectively. Similar proposals were forwarded by Peng (1976) and Kegl and Wilbur (1976). Peng contrasts signs that involve contact with the body with those not involving it. The former are for him consonants, the latter are seen as vowels. For Kegl and Wilbur hands are vowels, while non-manuals (viz. facial expressions) are consonants. What all these proposals imply is that sign languages exhibit syllables, which in turn is compatible with sequentiality.

Nevertheless, in spite of all these proposals, the status of simultaneity as the major organizing principle in the phonology of sign languages remains unquestionable. The organization of sign languages above the lexical level, i.e., at the syntactic level, is of course very similar to that of spoken/written languages-it is mostly sequential.

The remaining question is which principle is dominant in the morphology of sign languages, especially in light of the particular type of the interplay of linearity/sequentiality and non-linearity/simultaneity that can be observed in the morphology of spoken/written languages.

1.2. Concatenative vs. non-concatenative morphology (in spoken/ written languages)

Broadly speaking, morphological processes can be divided into two general categories: concatenative and non-concatenative ones.This distinction is based on whether two or more distinct and overt morphological elements are joined in the course of a morphological operation in a more or less straightforward way or not. In the former case they are termed concatenative processes, in the latter they are considered to be non-concatenative ones. According to Haspelmath and Sims (2010, p. 34), morphological processes are concatenative if "two morphemes are ordered one after the other," i.e., linearly. Non-concatenative morphology is negatively defined as "everything else" apart from patterns in which we witness linear ordering of morphemes. In the case of non-catenative processes a single lexical element may be modified internally, i.e., a covert element may be added, or we witness subtraction-systematic elimination of parts of a lexeme-, or a combination of these. Non-concatenative morphology is also called discontinuous morphology or introflection.

Concatenative morphological patterns are more common in the languages of the world (Haspelmath and Sims 2010, p. 40). It is present in both inflectional and derivational morphology. A phenomenon that seems to be widely attested across languages is the so-called portmanteau morph. The first part of the term is a borrowing from French, where it nowadays primarily refers to a coat hanger or a coat rack. This French word is a compound of porterto 'carry' and 'manteau 'cloak, following the V+N pattern, very frquently found in Romance languages, but also in Slavic languages. *Portemanteau* in French originally denoted a person, specifically a servant carrying the prince's mantle. Nowadays it is primarily used to denote a coat hanger or rack, but in the period from the 17th to the 19th century, it was used to denote a large travelling suitcase, opening into two parts of equal size, one for hanging clothes, and the other for items that could be folded, similar to chifforobe.

The term was introduced into linguistics proper by Hockett (1954, p. 333), who defined it as the simultaneous exponence of "two (or, theoretically, more) morphemes, and have simultaneously the meanings of both." A simple example

is the English *-s* added to verbs in order to express the 3rd person singular of the present simple tense. In Croatian, *žena* 'woman' consists of the stem, *žen-*, and a portmanteau morph -aexpressing gender (feminine), number (singular) and case (nominative). *Žene*, on the other hand, is feminine, singular and genitive, or feminine, plural and nominative. Note that the combination of feminine, plural and genitive of the same noun is marked by the portmanteau suffix -aand simultaneously by the change of the pitch accent in the stem from the short falling ë in the singular to the long rising é (pitch accents, combinations of vowel length and tone, are normally not marked in writing). This means that the plural of feminine nouns in the plural genitive is additionally marked by a suprasegmental change, which takes place simultaneously with the addition of the portmanteau morph. MacWhinney (1985) describes the mergers of the plural suffix and possessive suffix on Hungarian nouns as portmanteaus: the plural of *kor* 'age' is *korok*, the 1st person possessive is *korom*, the 3rd person is *kora*, and following the agglutinative logic of Hungarian, dominating the language, the plural of the 1st person possessive should be **korokom*, and of the plural of the 3rd person possessive should be **koroka*, but are actually *koraim* and *korai*, respectively. While this may be reinterpreted as complex case of the allomorphy of the plural marker, the relationship involving a 1st person singular subject and the 2nd person object is expressed on the verb by an exponent *-lak/-lek*, a much better example of a portmanteau morph: *Lát-lak*(téged), 'see 1sg→ 2sg(pron.2sg.acc)' (Ortmann and Gerland 2014). Kenesei et al. (1998: 70) refer to this form as "second person object" suffix.

Portmanteau as a label for the result of a particular word formation process was first proposed by Lewis Carroll in his novel Through the Looking Glassin 1882. One of the characters, Humpty Dumpty comments on words like *slithy*, which is said to mean *lithe* and slimy, saying that "it's like a portmanteau-there are two meanings packed up into one word." Portmanteau as a paramount example of non-concatenative morphology clearly involves overlap and simultaneity in both inflectional and derivational morphology.

When it comes to derivational morphology, or word-formation, we can say that generally concatenative processes happen to be the most important ones in English in terms of their productivity. In other words, compounding and

affixation belong therefore to major word formation processes in English in the sense of the classification proposed in Quirk et al. (1985, p. 1520). Most non-concatenative word formation processes, such as blending, clipping reduplication or conversion, have a minor role as far as English is concerned, but may be extremely important in other languages, especially reduplication and/or conversion. Reduplication notably plays an important role in inflectional morphology in a number of languages.

It must be stressed at this point that the correspondence between sequentiality and concatenative process on the one hand, and between simultaneity and non-concatenative patterns on the other, is far from being perfect. What is more there also appear to be some gradation within the two general morphological patterns, but especially within the non-concatenative one. While compounding, suffixation and prefixation as concatenative patterns are clearly sequential, there are also complex words that are the results of the simultaneous application of prefixation and suffixation, e.g. the English verb *embolden*, from the adjective *bold*. While reduplication in spoken/written languages, which can be exact or inexact, partial or full, may be more or less close to compounding, conversion, with or without formal modification, if recognized as a word-formation pattern, is clearly simultaneous and non-concatenative. Clipping or truncation in spoken/written languages, which is by definition non-concatenative, cannot be seen as being sequential. Blending or contamination is somewhere between being concatenative and non-concatenative because phonological material is eliminated and combined together, often exhibits more or less phonological overlap. The combination inherent in it gives the impression of sequentiality, but it occurs at the same time as truncation, i.e., simultaneously with it. Overlap is also something that is more compatible with simultaneity.

Needless to say, just as in spoken/written languages, we find both concatenative and non-concatenative morphology in sign languages. Aronoff et al. (2005: 335) make an interesting observation concerning the two types of morphology in sign languages. Considering that sign languages share a number of properties with creoles, both being relatively young systems, they point out a paradoxical situation: ign language exhibit highly complex signs and a high

degree of simultaneity in the creation of new signs or their grammatical modification-a fact that is normally absent from creoles. Further, they claim that simultaneous or non-concatenative morphology is very similar across sign languages. Concatenative or sequential morphology, on the other hand, tends to be idiosyncratic and specific to particular sign languages.

Pfau and Steinbach (2023) report that investigations into a wide number of sign languages reveal that inflectional processes are either simultaneous in nature or involve reduplication. Instances of word formation processes, i.e., of derivational morphology, that are basically sequential are relatively rare. They go on to stress that most "derivational processes are in fact also realized by changing the internal composition of a sign instead of attaching an affix before or after it" (Pfau and Steinbach 2023, p. 1447). In other words, derivation is simultaneous.

Spoken/written languages, which are organized linearly/sequentially, predominantly make use of concatenative morphology. As indicated by the research mentioned above, sign languages, which are characteristically organized simultaneously at the phonological level, appear to exhibit far more non-concatenative morphology than we find in spoken/written languages. The question in the focus of this article is whether we should therefore expect to see more non-concatenative word-formation across the board in sign languages, including lexical blending. The remainder of this article is organized as follows. We first give an overview of lexical blending as a word formation method in spoken/written languages, mostly in English, in Section 2. We than turn to blending in sign languages in Section 3, showing that, paradoxically (or not), canonical examples of blending in sign languages are relatively rare, especially when it comes to canonical forms of blending (from the point of view of spoken/written languages). We exclude from our considerations part of what Brennan (1990) refers to as "mix'n'match" signs-simultaneous combinations of items from the core lexicon and polymorphic predicates or classifiers (Brentari and Padden, 2001, p. 89. Since classifiers are considered to belong to grammar, that their combinations produce portmanteau constructions is just what is expected. A closely related construction that is also is considered to be a frequent type of blending in sign languages is, we claim in the concluding part

of Section 3, to be very similar in nature to multimodal constructions involving text and image integration. This phenomenon is brought into connection with phenomena ubiquitous in sign languages such as finger-spelling and initialization.

2. Lexical blending in spoken/written languages

Lexical blending or morphological blending (Ungerer and Schmid, 1996; Cacchiani, 2011) is one of the quirkiest phenomena of derivational morphology. It is a method of the formation of new lexemes from parts of two or more other lexemes by clipping or telescoping them, often disregarding morphological boundaries, and then joining them. In other words, this method of the formation of new words truncates certain outward parts of the words, the final part of the first and the initial part of the second, and then compounds the remaining parts. It is simultaneously a subtractive and an additive way of creating new lexemes. This process in illustrated in the following English constructions:

(1) a. stay+ vacation→ *staycation*
b. Trump+ apocalypse→ *Trumpocalypse*
c. balloon+ lunacy→ *balloonacy*
d. friend +enemy → *frenemy*
e. breath+ analyser→ *breathalyzer*
f. picture + dictionary → *pictionary*
g. chair + wardrobe → *chairdrobe*

Three or more words as the input for lexical blends are relatively rare (*Thanksallowistmas*, from *Thanksgiving* + *Halloween* + *Christmas; turducken fromturkey, duck* and *chicken*), but possible. In fact, it seems that there is no upper limit for the number of words thus combined, at least in theory. In practice, however, the more complicated a blend, the worse it comes off. Many blends are based on phonological overlap, as the two source words share a syllable or a part of a syllable. Because the degree of the overlap is variable it is also possible for one or both input words to remain intact and be actually

present in the blend in its/their full form.

There is at present no real consensus on how blends should be defined.Cannon (2000, p. 952) defines this way of creating new words as "a process of word formation in which two (or rarely, three) separate source items are telescoped into a new form, which usually exhibits overlapping and retains some of the meaning of at least one of the source items." As noted in Brdar-Szabó and Brdar (2008, p. 175), one of the problems of this definition is that the whole burden rests on an undefined notion of telescoping. If we understand it in the sense of intercalative formations, then infixation and discontinuous affixation may be seen as special cases of blending, or one could suppose all the three to be instantiations of a yet to be labelled more general type of affixation. Beliaeva defines a lexical blend as "a lexical item formed by merging together two (or more) source forms, so that 1) only part of their orthographical and/ or phonological material is preserved, and 2) they have not been formed by concatenation of morphs" (2014, p. 30).

There is no principled way of excluding on formal grounds combinations of two reduced forms in which both elements exhibit reduction of their right-hand segment, and not even those combinations where only the second element's right-hand peripheral segment is truncated, as in *sitcom*(→ *situation* + *comedy*), or *hi-fi*(→ *high* + *fidelity*), which are actually clipped compounds. Gries (2004, p. 215) calls these complex clippings. Bauer (2006: 502-503) classifies blends into syntagmatic and paradigmatic ones. Paradigmatic blends are those where the source words "are in a paradigmatic relationship with each other", as in *smog* (*smoke* + *fog*), while in syntagmatic blends their source words are "in a syntagmatic relationship to each other", as in *motel*(*motor* + *hotel*).

It appears therefore, as claimed in Brdar and Brdar-Szabó (2008), that we are in fact dealing with a cluster of related phenomena exhibiting family resemblance. There are core cases of blending, i.e. prototypical blends to which a much stricter definition applies: the input words are shortened at their seam, i.e. the end of the left-hand item and the initial segment of the right-hand item, or/and they share a phonological segment, while in semantic terms they are co-hyponyms of their inputs, like *brunch* or *stagflation*, are co-hyponyms of *breakfast* and *lunch*, and *stagnation* and *inflation*, respectively.It is evident that

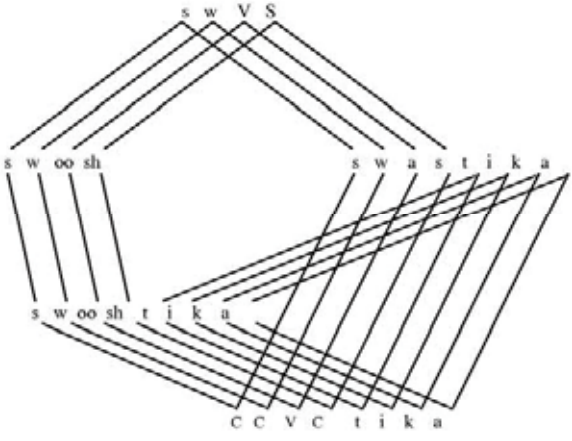
such blends exhibit an obvious parallel with coordinative compounds. If, on the other hand, the two input words fail to qualify as co-hyponyms, then we have determinative-compound-like blend, with or without overlap, as in *warphan*(→ *war* + *orphan*), or *shamateurism*(→ *sham* + *amateurism*).

If we concentrate on core instances of blending, we see that they aresubject to most stringent restrictions.First, both source words must belong to the same word class. Secondly,the productivity of blends is also clearly restricted in pragmatic terms: they tend to have concrete referents that are unique because they are collective units, mixes or something that is halfway between the entities denoted by the source words, etc. These are often hybrid animals or plants (*zonkey* or *zedonk* from *zebra* and *donkey, zebrule* from *zebra* and *mule*, *pizzly* from *polar bear* and *grizzly*, *pluot* from *plum* and *apricot*), dishes or drinks (cronutfrom croissantand donut, sushirritofrom sushiand burrito), pairs of closely related people(*Billary* from *Bill Clinton* and *Hillary Clinton*, *Merkozy* from *Merkel* and *Sarkozy*, *Kimye* from *Kanye West* and Kim *Kardashian*), etc. They are also at the core of the category of blends because they often exhibit diagrammatic iconicity in the sense that semantic overlap tends to be accompanied by phonological overlap.The reduction in the conceptual distance between the input words is signalled by the reduction of their phonological distance, i.e. by their fusion.

It is therefore no wonder in view of this reduction of conceptual distance that accompanies this sort of blends that lexical blending has recently been recognized as one of the instances of conceptual blending or integration (cf. Turner and Fauconnier, 1995; Fauconnier and Turner, 1996, 1998). The theory of conceptual blending is a dynamic model of human cognitive processing that shares a number of assumptions with other brands of cognitive linguistic models, but there are some significant points of difference. Its distinctive properties and mechanisms can be best illustrated if its workings are presented in contrast with an alternative cognitive model. In Lakoff and Johnson's (1980) account of conceptual metaphors and metonymies, mappings take place directly. In the case of metaphor, elements are mapped across two distinct cognitive domains, while in the case of metonymy a single mapping is assumed to take place within a single domain or within a domain matrix.

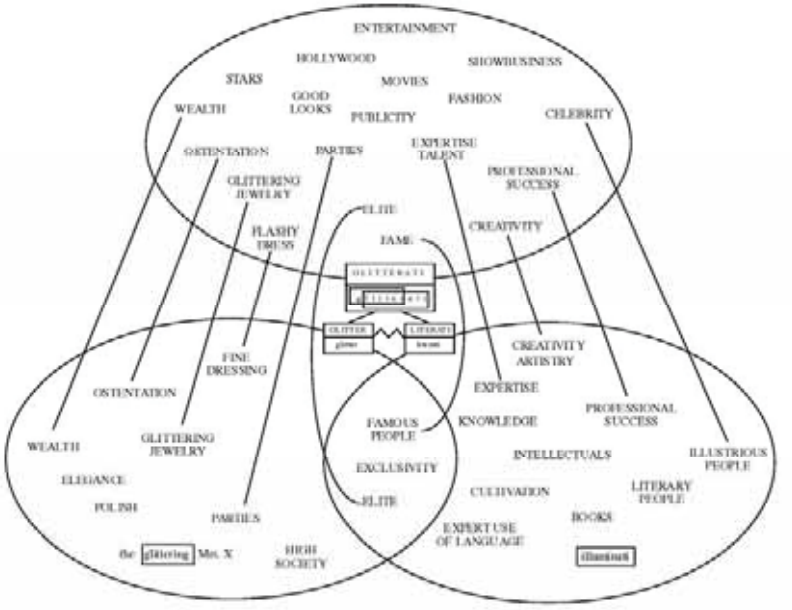
These cognitive domains roughly correspond to Fauconnier's (1994) mental spaces. The difference between the two models boils down to the fact that Fauconnier and Turner assume that in the case of metaphor not only two domains or mental spaces are at work, but at least four domains or spaces. In addition to Lakoff and Johsnon's source and target domains, there is also a generic space, as well as a blended or integrated one. In fact, what Lakoff and Johnson (1980) see as source and target domains, is here treated as source or input. What is more, there can be more than just two such source or input spaces or domains. The input spaces contain a number of elements of conceptual organization that are projected onto the generic space, and there may obtain correspondence links between elements from distinct input spaces. In other words, metaphor inherits common or corresponding elements from both/all input spaces. The generic space thus justifies or motivates the mappings between input domains or spaces. That lexical and conceptual blending are intimately related has been noted by a number of researchers, e.g. Ungerer and Schmid (1996), Kemmer (2000, 2003), Brdar and Brdar-Szabó (2003), Brdar (2006), and Brdar-Szabó and Brdar (2008).

Analyzing swooshtika(from *swoosh*, which is a slang label for Nike's logo, and *swastika*), Kemmer (2000, p. 12) establishes the following phonological relations between the inputs of this blend:



[Figure 1]

In her analysis of the blend glitteratifrom glitterand illuminatiKemmer (2000: 14) identifies a number of corresponding elements in the input spaces, resulting in the following multi-space network:



[Figure 2]

Lexical blending is a relatively productive word-formation process in the sense that new instances of blends are continually created, either spontaneously or intentionally, the latter case becoming more and more frequent. Bryant (1974), more than 50 years ago, claims that blends are increasing for a number of reasons. Crystal notes that "blending seems to have increased in popularity in the 1980s, being increasinglyused in commercial and advertising contexts"(1995, p. 135). However, most of blends remain protologisms i.e., nonce-formations, never becoming entrenched enough to stay. A number of blends remain current for a period of time, and then fall into disuse, only a handful of them becoming permanent additions to the lexicon (e.g. *spam*, *smog* or *brunch*).

In spite of the impression which one may get in light of the above, blends are not totally unsystematic (Peña-Cervel2022, p. 276), and can become integrated into complex derivational networks or word families. First of all, they can be input for other word formation processes and exhibit more than one order of derivation (cf. Körtvélyesi, Bagasheva and Štekauer, 2020). The coroneologism (note that this term is itself a blend, cf. Roig-Marín, 2021, and Brdar, Brdar-Szabó and Gradečak, 2021) covidiot, from *COVID* and *idiot*, serves as the base for the derivation of suffixations and prefixations like *covidiocy*, *covidiotism*, *anti-covidiot*, *mega-covidio*t, and *super-covidiot*. Iti s also the head of compound like *covidiot rave*, *covidiot partyor covidiot shaming*. The adjective *covidioticis* the base for *covidiotical*, which can be further modified to produce the adverb *covidiotically*.

Secondly, individual blends can also prompt the creation of other, often playful, analogical formations based on the same semantic type of input words, either the left-hand source word or on the right-hand one. In addition to covidiot the source word COVID has also been used to coin *CovIdentify*(*COVID* + *identify*), *covidual*(*COVID* + i*ndividual*) 'an individual who has or had COVID', *covincidence*(*COVID* + *incidence*), *covidient*(*COVID* + *obedient*), *covidence* (*COVID* + *evidence*), used to refer to evidence for or symptoms of COVID like cough, shortness of breath, loss of smell or taste, etc., *convincident*(*COVID* + *incident*), *covident*(*COVID* + *confident*), *covidant*(*COVID* + *confidant*), *covidante*(*COVID* + *confidante*), *covidiosyncracy*(*COVID* + *idiosyncracy*) 'a puzzling innovation in using protective gear', *covigilance/covigilante*(*COVID* + *vigilance/vigilante*), *covidiscipline*(*COVID* + *discipline)*, the examples coming from http://pendemic.ie/covid-19-lexicon-new-words-by-kathryn-a-hill/. There are also some COVID blends with three source words, such as covincidentidiot(*COVID* + *incident* + *idiot*), or *coedvidence*(*coed* + *COVID* + *evidence*). 'alarming COVID symptoms 14 days after new roommate moves in'. This last example is especially intriguing as evidenceis simultaneously blended with the other two source words in addition to coedbeing blended with COVID. Note further covideityand covidentiality, as used in the following text:

(2) A measure of how the ongoing pandemic has upended the world is how

> the name - COVID - has lent itself to a string of adjectivaluses. The two coinages which I find most fetching for describing our recent experience of return from the US to our home town are 'covideital' and 'covidential.' While the latter can be easily seen as a dystopic spin on providential, the former needs some explaining.
>
> 'Covideital' is a word that conjures for me overtones of gloom and doom. In these surreal and bleak times that record horrendous numbers of deaths from across the world on a daily basis, fatalities that the mind cannot even fathom, 'covideital' looks well set to replace fatal. Hence my recourse to the two words, learned, I must say, courtesy Prof Ashok Mahapatra of Sambalpur University, to reflect on our - me and my wife's - 'covideital' journey by air from the US to Bhubaneswar. The fact that I am alive to narrate does not take away the close, 'covidential' shave it was. I say 'covidential' in preference to providential because there is no closure that escape stories - think of the two famous escape movies *The Great Escapeand Escape to Victory* - are normally predicated on. In journeying home we have not merely exchanged one Covid hotspot - US - for another that is fast emerging - India. We are currently in self-isolation in our home in Chandrama Apartment for 14 days.

Covidential can actually be traced back to two different right-hand source words, in addition to providentialit can also be based on confidential, a situation which thus makes *covidential* something of a partial homophone.

Finally, one of the input words, viz. its remaining form (splinter, in the sense of Bauer 2006: 503), can ultimately become reinterpreted as an affix, like -gate, based on Watergate(*Contragate, Whitewatergate, Ubergate, Billygate, Irangate, Monicagate, Gategate, Partygate, Travelgate*), *-burger* based on *hamburger*(*cheeseburger, fishburger, beefburger, vegaburger, veganburger*), -(a/o)*nomics*, based on *economics*(*Nixonomics, Johnsonomincs, Reaganomics, Carteronomics, Clintonomics, Bushonomics, Obamanomics, Bidenomics, Kamalanomics, Trump(o)nomics*), or *Mc-*, based on *McDonald's*(*McChurch, McJob, McMansion*).

3. Blending in sign languages

3.1. Do lexical blendings carry across from spoken/written language to sign language?

One might (naively) expect that lexical blends used in spoken/written languages would find their correspondents in sign languages realized as blends. *Brunch* and *smog* are fairly frequently used and highly conventionalized lexical blends in English, and have also become internationalisms, i.e., they have been borrowed into many languages, including sign languages.

As it happens, the equivalent of brunchin ASL is a complex consisting of th ree signs, the sign for BREAKFAST, which is a compound of EAT and MORN ING, the sign for LUNCH, which is a compound of EAT and NOON, rounded off with the sign COMBINED/MATCH (https://www.youtube.com/watch?v=lRTtM cx6rSM). This means that the sign language counterpart of the blend is of seque ntial nature.



[Figure 3] BREAKFAST (EAT + MORNING)



Figure 4. LUNCH (EAT + NOON)



[Figure 5] COMBINED/MATCH

WORKAHOLIC is another compound sign. The first element is the sign for WORK (shaping both hands into fists, facing the palms downward, and tapping the dominant hand against the wrist of the non-dominant hand), followed by the sign for ADDICTED/HOOKED (pressing the tip of an X handshape into the cheek near the corner of the mouth and pulling it to a side, like a fish being hooked.



[Figure 6] WORK



[Figure 7] ADDICTED/HOOKED

MOTEL is usually fingerspelled in ASL, so again we do not find a blend as a counterpart, while some other frequent English blends are rendered by some

synonymous or unrelated signs.

By way of interim conclusion, it appears that there is no direct transfer between spoken/written languages and sign languages when it comes to lexical blending. In other words, sign language counterparts of blends in spoken/written languages are not blends. This is not surprising in view of the fact that the creation of complex lexical signs in sign languages follows somewhat specific logic. As pointed out by Makaroğlu, "[c]ross-modal comparisons of blends are challenging because of the varied criteria and terms mostly based on spoken languages"(2021, p. 142).

An indirect indicator of different strategies for closing lexical gaps in spoken/written languages and sign languages is a comparison of the types of neologisms related to COVID. We have seen in Section 3 that a large number of these coroneologisms coined in English are blends, in fact whole networks. On the other hand, as shown by Vale and McKee (2022), COVID-related innovation in New Zealand Sign Language included paraphrases, hypernyms, semantic extensions, etc., but do not mention cases of blending in any sense of the term. It should also be pointed that Peña-Cervel (2022, p. 280) reports that 199 items (27.83%) in her corpus of 715 English neologisms created between 2016 and 2020 were blends. Only compounding was more productive (53%).

Besides, the creation of sign languages blends is subject to certain limitations. Specifically, a sign language counterpart of *workaholic* would be very difficult to truncate in any way that would still be meaningful. The first constituent of the compound is a bimanual sign. It is not possible to reduce it to a monomanual sign, the movement of the dominant hand would become meaningless, moving its location is also questionable. The second constituent crucially depends on the movement close to the face. Therefore, a compound sign seems to be a more economical solution in this case.

3.2. Genuine cases of blending in sign language

What we find here are combinations of signs that differ from compounds. These are combinations exhibiting limited phonological features of the input signs that are always monomorphemic forms, and do not exhibit any trace of

sequentiality. Before we proceed, let us just outline the possibilities of sign combinations in light of the limitations on simultaneity, as discussed in Napoli and Sutton-Spence (2010).

As is well known, signs can be monomanual or bimanual, the latter occasionally being simplified to become monomanual if they are symmetrical. In addition to the two hands, signers can also use non-manual articulators such as facial expression, eye gaze, moth and body posture (Baker and Padden, 1978; Hwang et al., 2017). What is more, two hands can be used to produce two distinct lexical signs simultaneously (Meir et al., 2010), as well as for a range of other discoursal and referential functions (Perniss, 2012; Liddell, 2003; Engberg-Pedersen, 1994).

Starting from the number of hands involved in signing, we get two possible combinations, as producing two bimanual signs simultaneously is physically impossible. Theoretically speaking, symmetrical bimanual signs could be blended in such a way that they are reduced to monomanual signs, but this may result in the irrecoverability of one of both of the original signs. In other words, in theory, we are left with just two possible types of blends of complete lexical signs, without truncation, viz. reduction:

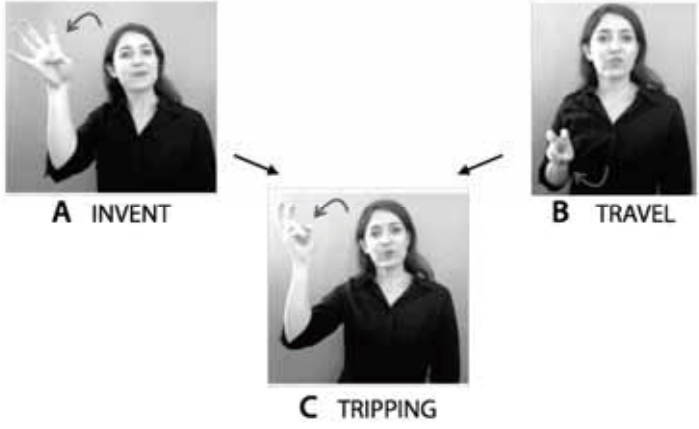


[Figure 8] Possible types of blends of complete signs

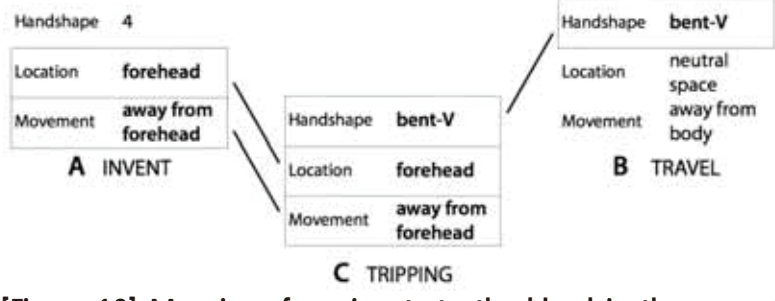
In practice, however, such blends without phonological modifications are actually unattested in sign languages. Rather, we find that part of the phonology of one sign “replaces” in the blend the equivalent part of the other sign. Such combinations are referred to by Makaroğlu (2021, p. 143) as “complete blends”. Again, we find the above two possibilities, as well as the combination of two symmetrical bimanual signs, although the majority of examples appear to involve two originally monomanual signs. Two symmetrical bimanual signs may blend into a non-symmetrical bimanual sign. Note that two monomanual signs may produce a bimanual blend, but apparently not the other way around.

3.2.1. “Complete” blends

These may be considered core examples of lexical blends in sign languages, coming closest to lexical blends in spoken/written languages. They are best seen as incorporating the segmental phonological sub-constituents from one word into the overall prosodic frame provided by another.An example of the combination of two monomanual signs with mixed phonology is TRIPPING ‘to be on drugs’, from the signs for INVENT and TRAVEL, as discussed in Lepic (2016, p. 101-102).



[Figure 9] The blended structure of TRIPPING



[Figure 10] Mappings from inputs to the blend in the case of TRIPPING

TRAVEL and TRIPPING are articulated with the same the bent-V handshape (as opposed to the 5 hand of INVENT), while INVENT and TRIPPING share the location (forehead) and movement (away from the body).

A combination of a bimanual sign blended with a monomanual sign in ASL is described in Brennan (1990) and Sutton-Spence and Woll (1999, p. 103). TTY, Tele Typewriter, sometimes also called TDD, or Telecommunication device for the Deaf, is a device consisting of mechanic typewriter paired with a communication channel, most frequently a phone line.



[Figure 11] Tele Typewriter

The ASL sign for TTY can be simply the three letters finger-spelled:



[Figure 12] TTY finger-spelled

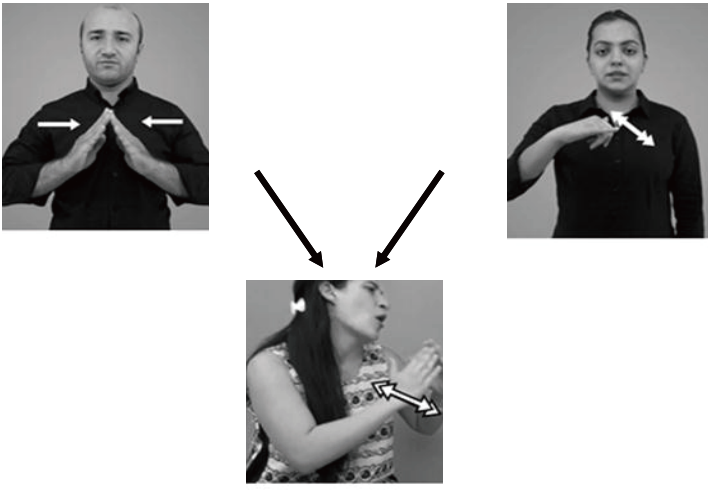
Brennan (1990) reports a that a combination of the monomanual sign for TELEPHONE, which is the Y-handshape located close to the ear, with the simplified sign for KEYBOARD, which originally uses two 5-handshapes with

palms down that mimic the activity of typing, can be used to refer to TTY. In this blend, the dominant typing hand is dropped, and the TELEPHONE is placed above the KEYBOARD hand in the neutral location in front of the lower chest.



[Figure 13] TTY

A similar case in Turkish Sign Language is described in Makaroğlu (2021, p. 143-144). The bimanual sign for HOME is combined with the monomanual sign for CLOSE.



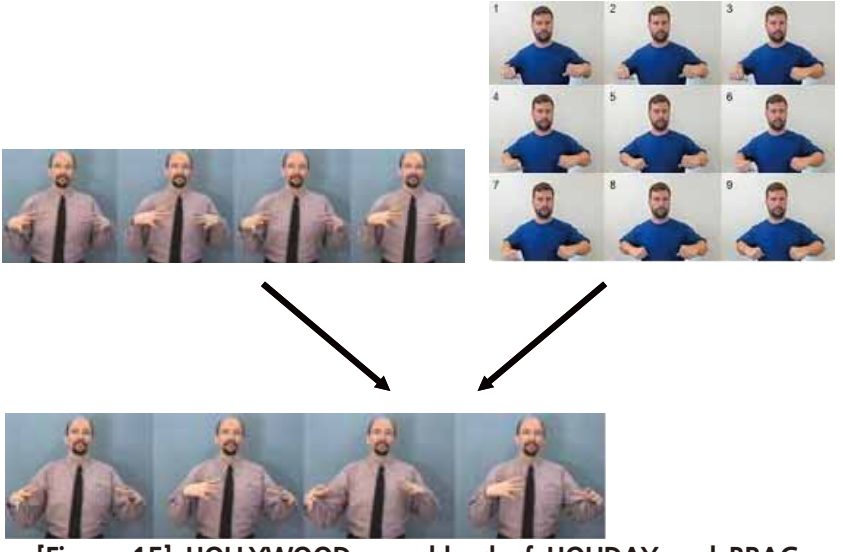
NEIGHBOUR

[Figure 14] NEIGHBOUR

The two B-handshapes touching at the finger tips, change their movement pattern to away from the body (repeatedly), while keeping the neutral position. The I-handshape of CLOSE is truncated. There is no reduction of the bimanual sign in the sense of its replacement by a monomanual sign, because it would make the blend virtually irrecoverable.

Finally, a blend may be based on two bimanual signs. One subtype retains the symmetry of handshapes, the other results in two different handshapes, accompanied by other phonological changes. The latter is singled out by Makaroğlu(2021) as simultaneous blending.

The former can be illustrated on the ASL sign for HOLYWOOD. It is a blend of the sign for HOLIDAY, poking the upper chest area twice with the thumb tips of relaxed 5-hands, withthe sign for BRAG, i.e. two A handshapes, thumbs pointing towards the abdomen, tap the sides of the abdomen with the thumbs two times in an alternating fashion.



[Figure 15] HOLLYWOOD as a blend of HOLIDAY and BRAG

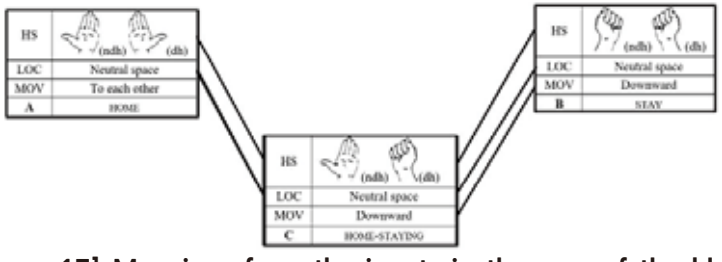
As an illustration of the latter type, with simultaneous bimanual blends as input that are each reduced to a single hand, consider the Turkish Sign

Language sign for HOME-STAYING from Makaroğlu(2021, p. 149). The downward movement comes from the dominant hand of STAYING. As predicted by Hendriks (2007),

> It is not allowed (and articulatorily almost impossible), for instance, to produce a sign with up-and-down movement and simultaneously produce a sign with a side-to-side movement on the other hand.
> Thus, when one hand produces a sign with a certain inherent movement, the other hand can only produce a sign that has symmetrical movement, or no movement, or a very simple phonetically inserted movement from one location to another (i.e. not a lexically specified movement). (2007, p. 241)



[Figure 16] HOME-STAYING



[Figure 17] Mappings from the inputs in the case of the blend HOME-STAYING

The type of simultaneous constructions discussed in this subsection, which might be considered core instances of blending in sign languages, again does not seem to yield a model that is profusely used in the creation of new signs. Examples are, as Meir (2012, p. 101) puts it, "exceedingly rare."

3.3. Initialized blends in sign language as integrated text-image constructions

Van Leeuwen (2005) developed a two-way system of text and image interdependency, where one mode can either specify/explain the other or have a similar/different/ complementary meaning. In the former case, either the text or the image may be dominant, while in the latter case, they run parallelly. In either case, he claims, they are loosely integrated. However, they can be very tightly integrated, so as to permeate each other and form a whole. Such tightly integrated text-image interactions in which the two are blended can be of two types. In one of them images are used as parts of a text, replacing words or graphemes (these are what McCloud (1993) calls montage, while Zakia and Nadin (1987, 1988) refer to such mixes as alpha-pictorial elements or components. In the other type, it is the other way around, words are treated as parts of the image itself, i.e., words or graphemes (or even their parts) form an image.

The former type can be illustrated by the following examples. The case of an image replacing a grapheme is described in Brdar-Szabó and Brdar (2023). It is the logotype of a Croatian restaurant located in the vicinity of Osijek (it actually calls itself restaurant and ball room, sometimes a resort, and advertises itself as a perfect place for wedding parties):



[Figure 18] The logotype of a restaurant with the letter Dreplaced by an image

Letter D is replaced in the logotype by a partial image of an apple. The fact that it is a fruit can be asserted, and the type of fruit identified, thanks to the presence of the stem and a leaf, and red colour of the outline of the apple, as well as its curved shape. It will be seen that only part of the apple, the outline of one half, is actually presented. We metonymically fill in the missing parts in order to arrive at the whole (part for whole). This half apple outline exhibits partial overlap in shape, or similarity with the grapheme D. If the apple were whole, the similarity in shape would disappear, or would be much more difficult to recognize and maintain. Note also that the grapheme is also incomplete, lacking the vertical stroke. This is also metonymically filled in (part of form for the whole form).

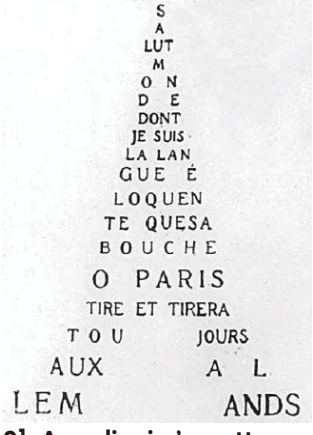
A variation on this is the logotype of the Hungarian bakery chain *Lipóti*. The swoosh ascender, with a repeated swoosh and the descender-turned-leftward-ascender that project from the initial capital L suggest the image of a loaf of bread.



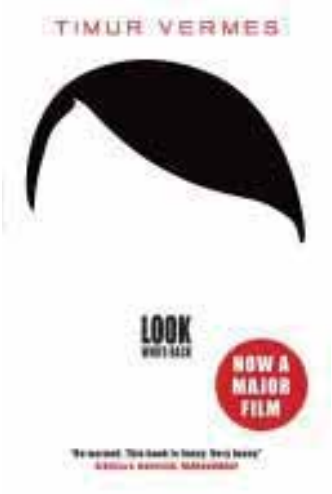
[Figure 19] The logotype of a Hungarian bakery chain

An image can replace a whole word, as in the case of the so-called I♥X construction, where the heart pictogram replaces the verb love. This replacement is again based on a series of metonymic shifts.

The latter possibility is illustrated by Apollinaire's concrete poetry, e.g. ina pattern poem dealing with Paris in the form of the Eiffel Tower in *Calligrammes*(Figure 20), or by the cover page for Timur Vermes' satiric novel about Hitler in the 21st century Germany, titled Er *ist wieder da*('He is here again') or *Look Who's Back* in English translation, where the words of the title are arranged in such a way that they resemble Hitler's moustache.



[Figure 20] Appolinaire's pattern poem



[Figure 21] The title page of Vermes' novel in English translation

Brdar-Szabó and Brdar (2022) describe the use of diacritic sign that is integrated into an image functioning as a logotype, specifically the logotype of the Cervantes Institute (Instituto Cervantes).



[Figure 22] The logotype of the Cervantes Institute

The logotype, created by Enric Satué, is very simple and consists of two pairs of lines, such that the two horizontal stripes touch two vertical sticks that run parallel to each other, topped by a wavy line in the middle. This wavy line is the diacritic called tilde, which appears in Spanish over the letter n, as ñ, called *eñe/enye/* in Spanish. Note that this diacritic is present in the Spanish word for Spain, España. The tilde in the logotype is thus a metonym for the Spanish language, and the language is further used metonymically to convey the concept of Hispanidad'Spanishness', the Spanish-speaking world and its culture.

It is also possible for a single grapheme to become so stylized as to become an image. The original logotype of Lasta, a bakery company from Čapljina in Bosnia and Herzegovina, contained two images of swallow, which is the meaning of lasta, and its longer variant, lastavicain Croatian.



[Figure 23] Logotype 1 of Lasta

In 2022, the company changed its logotype to a simpler one, with just the letter L whose descender and the upright stroke together with its loop ascender outline the body of the bird:



[Figure 24] Logotype 2 of Lasta

It is precisely this last example of the latter type of text-image integration, i.e., the letter-image integration that runs parallel to the majority of signs in sign languages that may be considered to belong to blends in a broader sense of the term (cf. also Nicolau, 2016).

However, we also find another type of the bimodal integration of elements from spoken language with elements of a sign language. It is present when a signer produces signs and simultaneously mouths corresponding words. Since the syntax of sign languages is often radically different from the syntax of spoken/written languages (ASL and BSL are not at all just signed versions of American and British English, respectively), not everything or anything in a sign language is mouthed. According to Proctor and Cormier (2022), mouth activity of signers may originate in the surrounding spoken language or be inherent to the sign language used. The former is referred to as mouthing, the latter as mouth gesture. Mouthing is mostly tied to lexemes of the spoken language, but the correspondence is not perfect. A sign may correspond to more than mouthed word, etc. This type of bimodal integration is of less interest in the present context, as it does not produce anything that may be called a blending.

What we focus on is the phenomenon of initialization in sign languages or the use of the finger-spelled first letter of a word. That this is really an instance

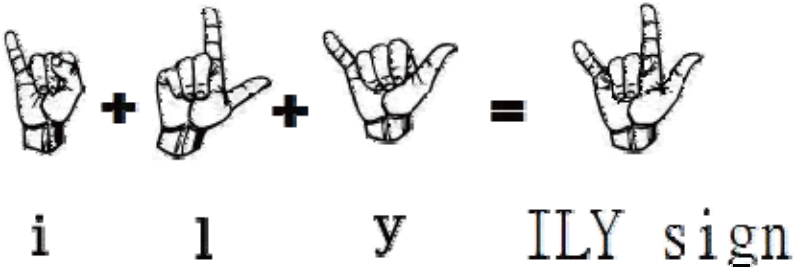
of image and letter integration, although in a very peculiar way, can be illustrated on the Italian Sign Language sign for DVD (Santoro 2018, p. 71).



[Figure 25] DVD in Italian Sign Language

This is a symmetric bimanual sign with the D-handshape. Since this is an acronym borrowed from English into Italian and then into Italian Sign Language, what is initialized are the first and the third letter of the acronym. However, the two finger-spelled Ds put together as in the above figure create a visual image of letter V (note that the finger-spelled V is ✌).

Another unique case of finger-spelled integration in which three signs, actually a whole sentence, are produced simultaneously using a single hand is the so-called ILY sign or the I-Love-You sign.



[Figure 26] The ILY sign

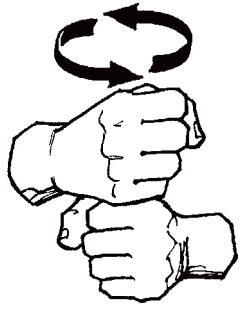
This is made possible by a lucky coincidence stemming from the way that these three letters are finger-spelled in ASL. Letter Y overlaps with both I and L. This sign has become very popular and has spread outside sign language, becoming something of an internationalism among gestures.

Blend-like cases of text-image integration come in two major varieties. Most of the time, it is simply the introduction into the sign of an element that denotes the first letter of the written counterpart of the sign. The sign for coffee in BSL (unlike its ASL counterpart) appears to resemble the activity of holding a cup of coffee and moving it close to the mouth. However, the handshape used is the C-handshape, which is luckily close enough:



[Figure 27] BSL sign for COFFEE

There are sign languages that keep the metonymy but also initialize simultaneously. Austrian Sign Language, Croatian Sign Language and Hungarian Sign Language use the coffee grinding sign, but both hands are apparently formed into K-handshape (which differs from ASL K handshape by being rotated by 90º). Letter K initializes *Kaffee*, kavaand *káve*, the equivalents of coffee in these spoken/written languages, respectively.



[Figure 28] The sign for COFFEE with K-handshape

According to some cognitive linguists (Barcelona, 2012, p. 260; Bierwiaczonek, 2013), this may be another metonymy because the initial letter stands for the whole lexeme (PART OF FORM FOR THE WHOLE FORM)

Finger-spelled C is also used when producing the most recent version of the sign for CELL PHONE in ASL. The slightly compressed C-shape is tapped twice on the side of the cheek.



[Figure 29] ASL for CELL PHONE

In all the above cases of finger-spelled letter integrated into a sign, we see that the letter is inherent to the sign, i.e. it is the initial letter of the written version of the corresponding word. However, the initialization may stem outside the original sign, which is the second variety we announced above. These can

be considered to come closer to prototypical cases of blending in sign languages. Our first example is the ASL sign for RETIREMENT. It is that same as the sign for VACATION/HOLIDAY (lightly jabbing the thumbs into the chest twice), but with the R handshape inserted into it instead of the 5-handshape:

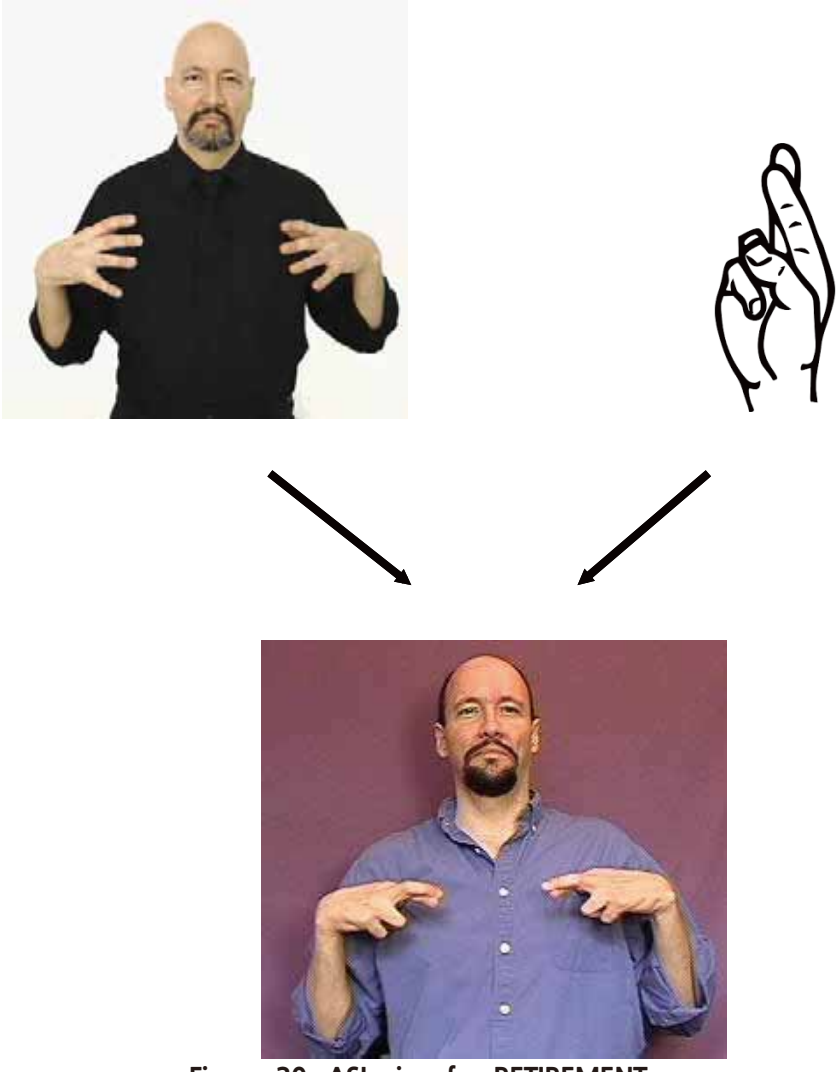


Figure 30. ASL sign for RETIREMENT

A number of similar examples are described in Mirus et al. (2012) and Loos et al (2022). The sign for NOSE, for example, is made by touching the nose with the 1-handshape, while the sign for BROWN is an initialization: the B-handshape moving down the side of the face. The sign BROWN-NOSE has a B-handshape moving down the side of the nose. We see that the general location comes from NOSE, but we now use the side of the nose rather than the tip. The handshape and movement are from the sign for BROWN.

An interesting case detailed in Makaroğlu (2021, p. 150) is a blending of two initialized signs, one of which is bimanual. Part of the phonology of this bimanual sign, finger-snapping, undergoes a deletion. The resulting blend consist of two monomanual signs, changing one finger-spelled initial from İ to I. Note that in the Turkish Sign Language alphabet, 20 out of 29 letter signs are always bimanual, two have bimanual and monomanual variants, and only seven are always monomanual (Zeshan, 2003), unlike ASL in which all the 26 are monomanual, or BSL in which all the 26 are bimanual.

Lexical signs can be coarticulated with initializing handshapes not related to these lexical signs, and actually not being specifically related to any particular item. Lepic (2016, p. 106) demonstrates this on some “U-initial” signs. Makaroğlu (2021) also identifies the same phenomenon in Turkish Sign Language. It must be, however, stated that it is difficult to accept these as cases of blending because one input is extremely underspecified, its contribution becoming clearer only in particular combinations. In this respect, this look more like an equivalent of affixation in spoken/written languages, disregarding, of course, the difference between simultaneity and sequentiality.

A variation on this theme are what Makaroğlu (2021) calls root blends.Unlike his “complete blends”, these are “formed with the structural fusion of a fully lexicalized sign and an abstract root (i.e. location) with specific meaning” (2021, p. 144). This is demonstrated in Lepic (2016: 103) on HEARING-MINDED ‘to uncriticallyembrace the values of the hearing majority’ and related signs such as WEAK-MINDED, MENTAL SCAR, or COMMIT TO MEMORY. HEARING-MINDED is based on HEARING, which is signed by rotating slightly the index finger in front of the mouth.



[Figure 31] HEARING in ASL

HEARING-MINDED is the same as HEARING, but articulated at the forehead.



[Figure 32] HEARING-MINDED in ASL

It is claimed by Lepic (2016, p. 103) that related signsHEARING-MINDED, WEAK-MINDED, MENTAL SCAR, and COMMIT TO MEMORY form a family of words. Makaroğlu (2021: 145) lists a whole series of Turkish Sign Language signs, such as EMPTY, QUESTION, MAGIC, or IMPORTANT, that when articulated at the head change their meaning to 'GOOFY', 'UNCERTAINTY', 'DREAM' and 'PROFESSOR', respectively. The sign EMPTY, when articulated at the nose, comes to mean 'DISAPPOINTMENT', REVERSE located at the eye becomes ILLUSION, while LOCK articulated at the mouth becomes SECRET. Santoro (2018, p. 138) cites SMALL changing to IGNORANT when located at the head in French Sign language.

4. Discussion and conclusions

Simultaneity is recognized as the major organizing principle in the phonology and morphology of sign languages, while sequentiality dominates in spoken/written languages.

The division of morphological processes into two general categories in spoken/written languages, into concatenative and non-concatenative ones, can with some reservations also be applied to sign languages, too, assuming there is a certain degree of correspondence between sequentiality and concatenative process on the one hand, and between simultaneity and non-concatenative patterns on the other.

This correlation largely holds, but is far from being perfect. Both concatenative and non-concatenative morphology are present in sign languages, but there is, generally, far more non-concatenative morphology than in spoken/written languages. We might therefore extrapolate that we should therefore expect to see more lexical blending among other word-formation phenomena in sign languages than in spoken/written languages. This, however, does not seem to be corroborated by data. On the contrary, canonical examples of blending in sign languages are relatively rare. We also show that what is suggested in the literature to be another frequent type of blending construction in sign languages is very similar in its nature to multimodal constructions involving text and image integration. This phenomenon has been brought here into connection with finger-spelling and initialization in sign languages.

We have also shown that in certain cases these marginal types of blending may be considered to partake in analogical networks of a kind, but their complexity pales in comparison with what we have seen at work with English blends in Section 2. What is more, it would be difficult to identify anything here as splinters in sign languages. What is suggested in the literature as putative splinters actually behave more like affixes because of their underspecification.

Further, it should be pointed out that the semantics of spoken/written language blends do not overlap to a significant degree with the semantics of what has been suggested to be sign language blends. In particular, there does

not seem to be much iconicity in the latter. In the case of what might be considered core cases of blending in sign languages, there is generally very little phonological overlap, sometimes it is just the location of articulation, which in terms of informativeness necessary for the recognition of blends approximates zero. And there is absolutely no phonological overlap whatsoever to be discovered in the case of so-called initialized blends and so-called root blends.

Finally, also on the formal side, although there are no obvious structural obstacles, we have not seen any putative blends that would have three of more input words, unlike blends in spoken/written languages.

Putting it into a nutshell, lexical blending in spoken/written languages and what was described as (lexical) blending in sign languages are two quite different phenomena. Coming a full circle, we may refer to the sequentiality/linearity of some non-concatenative processes in spoken/written languages. While the border-line between the two in sign languages is fairly discrete, discounting some smooth transitions, anticipations, etc., the situation in spoken/written languages is quite different. Some non-concatenative morphological processes may be absolutely sequential (total reduplication), or fairly sequential (partial reduplication, truncation/clipping operating in tandem with suffixation, or blending), coming occasionally closer to concatenative morphology.

References

Aronoff, M., Meir, I., & Sandler, W. (2005). The paradox of sign language morphology. *Language, 81*(2), 301-344.

Baker, C. & Padden, C. (1978). Focusing on the nonmanual components of American Sign Language. In Pat Siple (Ed.), *Understanding language through sign language research,* (pp.27-57). New York: Academic Press.

Barcelona, A. (2012). Metonymy in, under and above the lexicon. In Sara Alegre, Melissa Moyel, Elisabet Pladevall, & Susagna Tubau (Eds.), *At a time of crisis: English and American studies in Spain. Works from the 35th AEDEAN conference,* (pp.254-271). Barcelona: Departament de Filologia Anglesa i de Germanística, Universitat Autònoma de Barcelona.

Beliaeva, N. (2014). A study of English blends: From structure to meaning and back again. *Word Structure*, *7*(1), 29-54.

Bierwiaczonek, B. (2013). *Metonymy in language, thought and brain.* Sheffield: Equinox.

Brdar, M. & Brdar-Szabó, R. (2003). Uloga konceptualne integracije u usvajanju jezika. In Diana Stolac, Nada Ivanetić, & Boris Pritchard (Eds.), *Psiholingvistika i kognitivna znanost u hrvatskoj primijenjenoj lingvistici,* (pp.125-134). Hrvatsko društvo za primijenjenu lingvistiku.

Brdar, M., Brdar-Szabó, R., & Gradečak, T. (2021). Not all that glitters is new: Coroneologisms and the receny fallacy. *JoLIE. Journal of Linguistic and Intercultural Education, 14*(1), 21-43.

Brdar-Szabó, R. & Brdar, M. (2008). On the marginality of lexical blending. *Jezikoslovlje, 9*(1-2), 171-194.

Brdar-Szabo, R., & Brdar, M. (2022). Metonymy in multimodal discourse, or: How metonymies get piggybacked across modalities by other metonymies and metaphors. In Alexandra Bagasheva, Bozhil Hristov, & Nelly Tincheva (Eds.), *Figurativity and human ecology*, (pp.209-249). Amsterdam: John Benjamins.

Brdar-Szabó, R. & Brdar, M. (2023). Cultural models mediating between visual sensation and semiotic systems, exemplified on visual, alpha-pictorial and verbal-gestural communication. *Cognitive Linguistic Studies, 10*(2), 367-397.

Brennan, M. (1990). *Word formation in BSL*. Ph.D. Dissertation. Stockholm University.

Brentari, D., & Padden, C. A. (2001). Native and foreign vocabulary in American Sign Language: A lexicon with multiple origins. In Diane Brentari (Ed.), *Foreign vocabulary in sign languages: A cross-linguistic investigation of word formation,* (pp.87-119). New Jersey: Lawrence Erlbaum Associates.

Bryant, M. M. (1974). Blends are increasing. *American Speech*, *49*(3-4), 163-184.

Bye, P. & Svenonius, P. (2012). Non-concatenative morphology as epiphenomenon. In Jochen Trommer (Ed.), *The morphology and phonology of exponence,* (pp.427-495). Oxford: Oxford University Press.

Cacchiani, S. (2011). On unfamiliar Italian lexical blends from names and nouns.

Linguistica, *51,* 115-120.

Cannon, G. (2000). Blending. In Geert. Booij, Christian Lehmann, & Joachim. Mugdan (Eds.), *Morphologie: Ein internationales Handbuch zur Flexion und Wortbildung. 1. Halbband. − Morphology: An international handbook on inflection and word-formation,* (pp.952-956). Berlin: Walter de Gruyter.

Crystal, D. (1995). *The Cambridge encyclopaedia of language*. Cambridge: Cambridge University Press.

Engberg-Pedersen, E. (1994). Some simultaneous constructions in Danish Sign Language. In Mary Brennan & Graham Turner (Eds.), *Word-order issues in sign language*, (pp.73-87). Druham: International Sign Linguistics Association.

Fauconnier, G. (1994). *Mental spaces: Aspects of meaning construction in natural language*. Cambridge: Cambridge University Press.

Fauconnier, G. & Turner, M. (1996). Blending as a central process of grammar. In Adele Goldberg (Ed.), *Conceptual structure, discourse and language,* (pp.113-130). CSLI Publications.

Fauconnier, G. & Turner, M. (1998). Conceptual integration networks. *Cognitive Science, 22*(2), 133-187.

Geeraerts, D. (1989). Principles of monolingual lexicography. In Franz Josef Hausmann, Oskar Reichmann, Herbert Ernst Wiegand & Ladislav Zgusta (Eds.), *Wörterbücher. Ein internationales Handbuch zur Lexikographie. Dictionaries. An international encyclopedia of lexicography. Dictionnaires. Encyclopédie internationale de lexicographie,* (pp.287−296). Berlin: Walter de Gruyter.

Gries, S. T. (2004). Isn't that fantabulous? How similarity motivates intentional morphological blends in English. In Michel Achard & Suzanne Kemmer (Eds.), *Language, culture, and mind,* (pp.415-428). Chicago: CSLI Publications.

Haspelmath, M. & Sims, A. D. (2010). *Understanding morphology*. New York: Routledge.

Hockett, C. F. (1954). Two models of grammatical description. *Word, 10*, 210-231.

Hutton, C. (1990). Meaning and the principle of linearity. *Language & Communication,*

10(3), 169-183.

Liddell, S. K. (1984). Think and believe: Sequentiality in American Sign Language. *Language, 60*(2), 372-399.

Kemmer, S. (2003). Schemas and lexical blends. In Hubert Cuyckens, Thomas Berg, René Dirven, & Klaus-Uwe Panther (Eds.), *Motivation in language: Studies in honor of Günter Radden,* (pp.69-97). Amsterdam: John Benjamins.

Kenesei, I., Vago, R. M., & Fenyvesi, A. (1998). *Hungarian.* New York: Routledge.

Körtvélyessy, L., Bagasheva, A., Štekauer, P., & Valera, S. (2020). Introduction. In Pavol Štekauer, Alexandra Bagasheva, & Lívia Körtvélyessy (Eds.), *Derivational networks across languages,* (pp.1-26). Berlin: Mouton De Gruyter.

Lakoff, G. & Johnson, M. (1980). *Metaphors we live by.* Chicago: The University of Chicago Press.

Lepic, R. (2015). *Motivation in morphology: Lexical patterns in ASL and English.* Ph.D. Dissertation. University of California

Lepic, R. (2016). Lexical blends and lexical patterns in English and in American Sign Language. In Jenny Audring, Francesca Masini, & Wendy Sandler (Eds.), Quo *vadis morphology? On-line proceedings of the tenth mediterranean morphology meeting (MMM10),* (pp.98-111). University of Bologna/University of Leiden/University of Haifa.

Liddell, S. K. (1984). Think and believe: Sequentiality in American Sign Language. *Language, 60*(2), 372-399.

Liddell, S. K. (2003). *Grammar, gesture, and meaning in American Sign Language.* Cambridge: Cambridge University Press.

Loos, C., German, A., & Meier, R. P. (2022). Simultaneous structures in sign languages: Acquisition and emergence. *Frontiers in Psychology, 13,* 992589.

MacWhinney, B. (1985). Hungarian language acquisition as an exemplification of a general model of grammatical development. In Dan Isaac Slobin (Ed.), *The crosslinguistic study of language acquisition: Theoretical issues,* (pp.1069-1156). New Jersey: Lawrence Erlbaum Associates.

Makaroğlu, B. (2021). Blend formation in Turkish Sign Language: Are we missing the big picture? *Journal of Language and Linguistic Studies, 17*(1), 139-157.

Mathur, G. & Rathmann, C. (2010). Two types of nonconcatenative morphology in signed languages. In Gaurav Mathur & Donna Jo Napoli (Eds.), *Deaf around the world: The impact of language,* (pp. 54-82). Oxford: Oxford University Press.

McCloud, S. (1993). *Understanding comics: The invisible art.* New York: Harper Collins.

Meir, I. (2012). Word classes and word formation. In Roland Pfau, Markus Steinbach, & Bencie Woll (Eds.), *Sign language: An international handbook*, (pp.77-111). Berlin: Mouton de Gruyter.

Meir, I., Aronoff, M., Sandler, W., & Padden, C. (2010). Sign languages and compounding. In Sergio Scalise & Irene Vogel (Eds.), *Cross-disciplinary issues in compounding,* (pp.301-322). Amsterdam: John Benjamins.

Mirus, G., Fisher, J. & Napoli, D. J. (2012). Taboo expressions in American Sign Language. *Lingua, 122*(9), 1004-1020.

Napoli, D. J., & Sutton-Spence, R. (2010). Limitations on simultaneity in sign language. *Language, 86*(3), 647-662.

Nicolau, F. (2016). The transfer of signs between heterogeneous systems: Incongruent equivalences. In Daniel Dejica, Gyde Hansen, Peter Sandrini, & Iulia Para (Eds.), *Language in the digital era: Challenges and perspectives,* (pp. 71-95). Berlin: De Gruyter Open.

Quirk, R., Greenbaum, S., Leech, G., & Svartvik, J. (1985). *A comprehensive grammar of the English language.* London: Longman.

Peña-Cervel, M. S. (2022). Lexical blending in terms of cognitive modeling. In Alexandra Bagasheva, Bozhil Hristov & Nelly Tincheva (Eds.), *Figurativity and human ecology,* (pp.275-304). Amsterdam: John Benjamins.

Peng, F. C. C. (1976). Sign language and its notational system. In Peter Reich (Ed.), *The second LACUS forum*, (pp.188-199). Hornbeam Press.

Perniss, P. (2012). Use of sign space. In Roland Pfau, Markus Steinbach, & Bencie Woll (Eds.), *Sign language: An international handbook,*

(pp.412-431). Berlin: Mouton de Gruyter.

Pfau, R. & Steinbach, M. (2023). Morphology in sign languages. In Peter Ackema, Sabrina Bendjaballah, Eulalia Bonet, & Antonio Fabregas (Eds.), *The Wiley Blackwell companion to morphology,* (pp.1445-1482). New Jersey: Wiley Blackwell.

Proctor, H. & Cormier, K. (2023). Sociolinguistic variation in mouthings in British Sign Language: A corpus-based study. *Language and Speech*, *66*(2), 412-441.

Roig-Marín, A. (2021). English-based coroneologisms: A short survey of our Covid-19-related vocabulary. *English Today, 37*(4), 193-195.

Sandler, W. & Lillo-Martin, D. (2006). *Sign language and linguistic universals.* Cambridge: Cambridge University Press.

Santoro, M. (2018). *Compounds in sign languages: The case of Italian and French Sign Language.* Ph.D. Dissertation. EHESS.

Saussure, F. de (1916/1972). *Course in general linguistics.* Translated by W Baskin, Revised edition. Originally published in 1916 as Cours de *linguistique générale*. California: Fontana Press.

Stokoe, W. C. (1960). *Sign language structure*: *An outline of the visual communication systems of the American deaf.* Burtonsville: Linstok Press.

Sutton-Spence, R. & Woll, B. (1999). *The linguistics of British Sign Language: An introduction.* Cambridge: Cambridge University Press.

Turner, M. & Fauconnier, G. (1995). Conceptual integration and formal expression. *Metaphor and Symbolic Activity, 10*(3), 183-204.

Ungerer, F. & Schmid, H.-J. (1996). *An introduction to cognitive linguistics.* London: Longman.

Vale, M. & McKee, R. (2022). Neologisms in New Zealand Sign Language: A case study of COVID-19 pandemic-related signs. In Annette Klosa-Kückelhaus & Ilan Kernerman (Eds.), *Lexicography of coronavirus-related neologisms,* (pp.261-274). Berlin: Mouton De Gruyter.

van Leeuwen, T. (2005). *Introducing social semiotics.* New York: Routledge.

Zakia, R. & Nadin, M. (1987). Semiotics, advertising and marketing. *The Journal of Consumer Marketing, 4*(2), 5-12.

Zakia, R. & Nadin, M. (1988). Visual aducation. In Herzfeld Michael & Melzzo

Lucio (Eds.), *Semiotic theory and practice,* (pp.1237-1244). Berlin: Mouton De Gruyter.

Zeshan, U. (2003). Aspects of Türk Isaret Dili (Turkish Sign Language). *Sign Language & Linguistics*, *6*(1), 43-75.

Brdar-Szabó, Rita
Professor
Eötvös Loránd University
ELTE, Germanisiztikai Intézet, H1088 Budapest, Rákóczi út 5 Hungary.
Phone: +36 30 929 3127
Email: szabo.rita@btk.elte.hu

Brdar, Mario
Professor
University of Osijek
Trg Svetog Trojstva 3, HR-31000 Osijek, Croatia.
Phone: +33 859 8967 0380
Email: mbrdar@ffos.hr

Received on Nov 30, 2024
Revised version received on Dec 11, 2024
Accepted on Dec 27, 2024

Sign Languages and Linguistics Convergence Research
Vol. 1. No. 2 (2024) pp.331~352

A Bibliometric Analysis of Themes and Network Structures in Sign Language Policy*

Jeon, Haewon
(Korea Maritime & Ocean University)

Jeon, Haewon. 2024. A Bibliometric Analysis of Themes and Network Structures in Sign Language Policy Blending. ***Sign Languages and Linguistics Convergence Research,*** *1*(2), 331-352. This study examines the research landscape of Sign Language Policy using bibliometric analysis of Author Keywords and Keyword Plus data. Co-occurrence network and thematic map analyses reveal that Author Keywords highlight niche themes in specialized subfields, while Keyword Plus identifies broader, interdisciplinary connections. Thematic maps categorize research themes into Motor, Niche, Emerging or Declining, and Basic Themes, showcasing their developmental stages and significance. A comprehensive analysis of the themes and network structures of sign language policy data, acquired by bibliometric analysis, enables the understanding of keyword interactions, identification of research trends, and forecasting of future research fields. These insights inform evidence-based policymaking, addressing research gaps and promoting inclusivity, accessibility, and linguistic rights for Deaf communities worldwide.

Key Words: Sign Language, Language Policy, Language Planning, Bibliometric Analysis, Network Analysis

---

* We appreciate the insightful suggestions of anonymous reviewers. An earlier version of this paper was presented at 2024 Fall Conference of The Linguistic Association of Korea.

1. Introduction

Sign language has been recognized as a legitimate subject of linguistic research since it was identified as a natural language by Stokoe(1980, p.366) and Brennan et al.(1984), opposing previous belief that it as merely a system of gestures. Furthermore, Berwick and Chomsky(2015, p.5) recently contended that human language should be examined from the perspective of evolution and genetics, advocating for acknowledging sign language as a full human language. Nonetheless, the misconception that sign language is solely a communication tool continues to prevail among the general public, which is attributed to its lack of political influence and the low representation of Deaf people in the professions.

The United Nations Convention on the Rights of Persons with Disabilities(CRPD), adopted in 2006, acknowledges sign languages as equivalent to spoken languages and mandates governments to advocate for the linguistic rights of those who are deaf. The Korean government has made legal accomplishments in formally recognizing Korean Sign Language(KSL) with the Korean Sign Language Act(2016); nonetheless, KSL's official position remains significantly below that of an equal language. Sign languages frequently encounter supplementary obstacles, including societal bias and oralism, prioritizing spoken languages over sign languages, and complicating the planning and execution process (Reagan, 2006; Rose & Conama, 2018). This context underscores the necessity for both linguistically educated and culturally attuned policies accommodating the distinct requirements of Deaf people. Although language policy and planning in sign languages parallels spoken languages in the broader context of establishing linguistic and cultural identity, notable variances arise from the distinct placing of these languages.

A research by Lee et al.(to appear) indicates that 51 scholarly articles on language policy in sign languages were published from 1998 to 2024, a modest figure compared to the 3,576 publications on language policy in spoken languages during the same time frame. In other words, research on language policy in sign languages is significantly less extensive than on spoken languages. The steady increase in publications regarding sign language policy since 2010 is significant, associated with numerous nations' formal acknowledgment of sign

languages. New Zealand(2006), Iceland(2011), Finland(2012), and the Republic of Korea(2016) have officially recognized their national sign languages, which appears to have stimulated research into the policy ramifications of this recognition. The early 2010s experienced a proliferation of scholarship in deaf studies and sociolinguistics, emphasizing minority languages and language rights. This represented a movement towards acknowledging sign language as a distinct language and comprehending its intricate sociolinguistic dynamics, resulting in a surge of new research and publications. At the same time, technological advancements enhanced the visibility of ASL through the proliferation of video relay services and social media. International debates regarding language policy, access to information, and equal rights have been initiated due to this elevated visibility, which has also initiated academic research. The aforementioned factors resulted in a notable surge in research concerning Deaf language policy in 2020.

Bibliometric Analysis, employed in this research, systematically examines scientific literature to discern patterns, trends, and effects within a specific topic(Passas, I., 2024). It assists in identifying contemporary research themes and prospective trends (Fan et al., 2023; Liu et al., 2004) and has recently become an invaluable instrument in the preliminary phases of systematic literature reviews(Donthu et al., 2021; Khan et al., 2021). Furthermore, Handoyo, S.(2024, p.2) posits that bibliometric outcomes can assist researchers in identifying prevalent themes and potential fields for further investigation. Lee et al.(to appear) conducted a bibliometric analysis revealing differences in the number of publications, citation indexes, core themes, and associated keywords between the language policies of spoken and sign languages.

This study employs bibliometric analysis techniques to identify factors contributing to changes in the evolving landscape of Sign Language Policy, as well as critical themes and their dynamic relationships. The evolution and interaction of themes are analyzed, emphasizing extensive thematic networks via co-occurrence network analysis and thematic map analysis. The multi-perspective view demonstrates the extent of diversity in Sign Language Policy research. This also emphasizes avenues for future research, emerging topics, and interdisciplinary opportunities.

This paper aims to conduct a bibliometric review to systematically map the literature on Sign Language Policy. To systematically map and analyze the evolution of themes, critical connections, and interdisciplinary overlaps in Sign Language Policy research. The author keyword(AUK) and keyword plus (KWP), two data types derived from bibliometrix, are analyzed using a co-occurrence network and thematic analysis. Therefore, the following research questions can be posed. What themes dominated the literature regarding Sign Language Policy? What network structure is built in the literature of Sign Language Policy? They are examined for their distinct thematic and Network structures concerning Sign Language Policy research. Our study explores the differences between them and anticipates the implications for the future of sign language policy. Chapter 2 illustrates the bibliometric analysis and presents the data employed in this study. Chapter 3 explores the findings from the examination of two distinct data sets: AUK and KWP, which were extracted by ranging methodologies. Co-occurrence network analysis and thematic map analysis are employed for the examination, with significant insights derived from the results presented in Chapter 4, followed by conclusions in Chapter 5.

2. Material and methods

2.1. Bibliometric analysis

Bibliometric analysis serves to outline the intellectual framework and research trends within a field through numerical indicators(Zhao et al., 2022,p.1). Bibliometric analysis, a systematic approach for assessing scientific literature, has experienced considerable progress since the beginning(Chen et al., 2018; Donthu et al., 2021; Ellegaard and Wallin, 2015; Li and Lei, 2020). Bibliometric analysis in academia is employed to assess the performance of publications and journals, discern collaboration patterns and emerging research trends, investigate the thematic and network structure of particular fields within the literature, and identify the nuanced variations in the accumulation and evolution of scientific knowledge(Laengle et al., 2020; Ragazou et al., Singh and Dhir, 2015, p.132)

The research employed RStudio in conjunction with the Bibliometrix extension for bibliometric analysis. RStudio(4.4.1) is extensively employed software for statistical computing, graphics, data science, and academic research. Bibliometrix is an auxiliary application and tool for performing quantitative research in scientific measurement and bibliometrics, specifically tailored for RStudio software(Ingale & Paluri, 2022).

[Table 1] Description of bibliometric analysis(Handoyo, S., 2024, p.4)

Analysis	Description	Aspects used in the study
Descriptive Analysis	In a bibliometric study, descriptive analysis entails the process of examining a dataset of scientific publications and summarizing its essential features and patterns. Through descriptive analysis, researchers gain insights into the characteristics and distribution of research outputs.	-Data description -Core journal based on Bradford's law -Production over time of core journal -Most cited documents -Most frequently words
Network Analysis	The network analysis method looked at the relationships and interactions between different parts of scientific literature, such as authors, institutions, journals, and publications. Researchers can learn about the structure, dynamics, and patterns of how scientific knowledge is made and shared by modeling these relationships as networks.	-Co-occurrence net works analysis - Thematic research network analysis -Thematic research quadrant analysis

Bibliometric analysis is primarily categorized into descriptive analysis and network analysis [Table 1]. In bibliometric studies, network analysis presents distinct advantages that enhance descriptive analysis by yielding a more profound and nuanced comprehension of the research landscape(Singh and Dhir, 2015,p.135). Descriptive analysis concentrates on presenting trends and distributions, including publication counts, frequently cited documents, and principal journals, whereas network analysis highlights the relationships and interactions among entities such as authors, institutions, and research areas. This relational emphasis allows researchers to identify collaborative patterns, thematic links, and knowledge transfers within a discipline.

Thus, network analysis augments bibliometric research by providing a more nuanced and strategic analytical dimension that beyond the capabilities of solely descriptive methods. This paper will concentrate on network analysis, which can more closely identify interrelationships by focusing on keywords, as Lee et al. (to appear) have conducted a descriptive analysis of sign language policy.

2.2 Data collection

WoS, an abbreviation for Web of Science, is the most commonly used and primary method for searching the SCI, SSCI, and A&HCI databases. WoS is a highly comprehensive and authoritative database platform for acquiring global academic information, regarded as the premier database for bibliometric analysis(Li et al., 2023). In this study, we searched WOS using the listed topic strings (TS)[1]with the search option set to 'Topic' to extract bibliographic information of publications containing 'language policy' or 'language planning' in the title, keywords, or abstract of the article. As it was confirmed that research on sign language has been published since 1998, to extract the data required for this study, the year of publication was set from 1998 to 2024, and the search database was limited to the index of SCI-grade academic articles indexes of SCI-level journals. The types of literature are articles, proceedings, and early access articles, and the language is limited to English. After manually screening the searched data, 51 articles were selected and saved as plain text files to complete the groundwork for further analysis.

1) For sign languages, TS = ("sign language" AND ("language polic*" OR "language planning"). The justification for formulating the search word as "language polic*" is to encompass both "policy" and "policies."

[Table 2] Main Information of the Dataset

Category	Descriptions	Results
Main information about data	Time span	1998-2024
	Sources(Journal, Books, etc.)	32
	Documents	51
	Annual Growth Rate %	7.77
	Average Citations Per Document	9.176
	References	2572
Document contents	Keywords Plus (ID)	83
	Author's Keywords (DE)	173
Document Types	Articles	49
	Articles; Early Access	218
	Articles; Proceedings Papers	45

The dataset contains a total of 51 documents in sign language policy[2] and shows an annual growth rate of 7.77%, indicating a consistent rise in research activity in recent years. The average age is about 4.98 years, suggesting that most of the research is relatively recent. Regarding keyword-related pluses(ID) and author keywords(DE), there are 83 KWP[3] and 173 corresponding AUK in sign language policy in the dataset. We performed a network analysis utilizing data obtained from both AUK and KWP to elucidate the themes and network structure of sign language policy, with the results detailed in the subsequent section.

2) This study is restricted by the limited amount of research on language policy in sign language extracted from the Web of Science. To compensate for this, future studies will expand the size of the data to include a broader range of literature such as SCOPUS.

3) Authors' Keywords(AUK) are self-selected by researchers when submitting papers to describe the research field, method or main concept of the paper. They are usually more specific and can reveal the specific content of the research and the researcher 's research perspective. Keywords Plus(KWP) are extracted from the reference title of the sample article, providing more information than the first two keywords. They may include broader terms that are relevant to the research topic, but may not be explicitly present in the article's title or in the keywords chosen by the author(Singh and Dhir, 2015, p.144; Wei et al, 2024, p.4; Zhang et al., 2016, p.968).

3. Results

3.1. Co-occurrence network analysis

Network analysis of co-occurrence links is a useful technique for investigating scientific mapping and the structure of the theme and network of data. It has been utilized to create graphs illustrating the relationships among various items within the dataset(e.g., authors, institutions, keywords) by analyzing keyword associations in literature, emphasizing the comprehension of knowledge components and the organization of the theme and network.

3.1.1 Co-occurrence network analysis of Author Keyword

A co-occurrence network map visually represents the relationships among elements within a particular dataset or text corpus. These entities may include words, phrases, tags, or other elements that can coexist. [Table 3] provides a comprehensive explanation of the facts underlying the co-occurrence network map.

[Table 3] Co-word Network Analysis of AUK in Sign Language Policy

Node	Cluster[4]	BC[5]	CC[6]	PageRank[7]
sign language	1	10	0.063	0.076
deaf education	1	9	0.059	0.056
multilingualism	1	0	0.053	0.035
bilingualism	1	0	0.04	0.023
inclusion	1	0	0.038	0.025
language policy	2	26	0.083	0.115
aranese language	2	0	0.059	0.064
catalan	2	0	0.059	0.064
catalan sign language	2	0	0.059	0.064
catalonia	2	0	0.059	0.064
language	2	0	0.059	0.064
language ideology	3	0	1	0.059
language practice	3	0	1	0.059
deaf	4	0	1	0.059
hard of hearing	4	0	1	0.059
language officialisation	5	0	1	0.059
language policy and planning	5	0	1	0.059

The analysis of the co-occurrence network for AUK reveals five distinct clusters, each characterized by unique interactions of Betweenness Centrality, Closeness Centrality, and PageRank. Cluster 1, encompassing five keywords, such as "sign language," "deaf education," and "inclusion," exhibits moderate Betweenness Centrality(3.8)[8] and Closeness Centrality(0.051), alongside a lower PageRank(0.043). This indicates a role as a foundational cluster connecting various themes but with limited influence across the broader network.

Cluster 2, containing six keywords, including "language policy," "catalan," and "catalonia," has the highest Betweenness Centrality (4.33) and Closeness Centrality(0.063), paired with a notable PageRank(0.0725). These metrics position this cluster as a pivotal hub for integrating interdisciplinary topics and forming critical connections. "language policy" shows the highest betweenness centrality value of 26, signifying its crucial function as a connecting node that links other terms within the network, thereby underscoring its central significance in the discussion of sign language policy.

Clusters 3, 4, and 5 each consist of two highly specialized keywords: Cluster 3 features terms such as "language ideology" and "language practice"; Cluster 4 includes "deaf" and "hard of hearing"; and Cluster 5 encompasses "language officialisation" and "language policy and planning." These clusters exhibit zero Betweenness Centrality but maximum Closeness Centrality(1.0) and moderate PageRank(0.059), representing isolated or niche themes deeply

---

4) In bibliometric analysis, a cluster refers to a group of related items (e.g., keywords, articles, or authors) that share certain characteristics or connections, such as co-occurrence, citation relationships, or thematic similarity. Clustering helps identify patterns, group similar entities together, and reveal the structure of a dataset. Bibliometric clustering integrates network-based centrality measures (e.g., degree, closeness, betweenness) (For more details, refer to Ezugwu et al, 2021, p.5 <Fig. 2. Taxonomy of clustering algorithms>.)

5) BC stands for Betweenness Centrality(Bridges different parts of the network; interdisciplinary or emerging themes)

6) CC stands for Closeness Centrality(Measures how central and accessible :a node is widely connected topics)

7) PageRank measures the overall influence and importance of a node (authoritative or dominant themes)

8) This represents the mean value of the words inside each cluster.

interconnected within their respective domains but disconnected from broader interdisciplinary networks. Together, these clusters illustrate the field's structure, with some themes serving as central integrators and others as focused niches, highlighting the dynamic interplay between interdisciplinary connectivity and domain-specific depth.

Cluster 1 emphasizes foundational themes that underpin the broader field of sign language policy. These topics connect essential elements such as accessibility in education and social inclusion for Deaf individuals. Policies should focus on ensuring equitable educational opportunities and advocating for inclusive practices to strengthen the foundation for Deaf communities. Cluster 2 highlights the role of language policies in preserving regional identities and promoting linguistic diversity. It serves as a bridge connecting regional language issues to broader policy discussions. Cluster 3 explores ideological underpinnings and practical implementations of language policy. It underscores the importance of understanding sociocultural beliefs and their impact on policy development. Cluster 4 highlights the importance of tailoring policies to the unique requirements of these communities. Cluster 5 emphasizes the formal recognition and strategic planning of language policies, underscoring the need for structured and official support for sign languages.

3.1.2 Co-occurrence network analysis of Keyword Plus

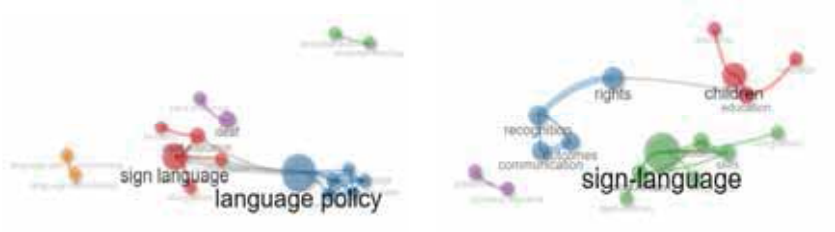
In the previous subsection, we examined the outcomes of the co-occurrence analysis performed with AUK. This subsection presents the findings of the co-occurrence analysis performed using KWP. The co-occurrence analysis results differ due to the distinct methodologies employed in generating AUK and KWP. The results of the analysis with KWP are displayed in the table below.

[Table 4] Co-word Network Analysis of KWP in Sign Language Policy

Node	Cluster	BC	CC	PageRank
children	1	6	0.059	0.063
education	1	14	0.077	0.084
discourse	1	0	0.043	0.036
language	1	0	0.053	0.033
rights	2	12	0.077	0.062
recognition	2	10	0.067	0.079
communication	2	0	0.05	0.057
outcomes	2	0	0.05	0.057
sign-language	3	12	0.167	0.129
acquisition	3	0	0.111	0.061
skills	3	0	0.111	0.07
students	3	0	0.111	0.07
bilingualism	3	0	0.091	0.027
cochlear implantation	3	0	0.091	0.027
deaf-children	3	0	0.091	0.027
cochlear implants	4	0	1	0.059
preschool	4	0	1	0.059

The co-occurrence analysis of KWP data reveals four distinct clusters, each contributing uniquely to the thematic structure of the research field. Cluster 1, comprising keywords such as "children," "education," "discourse," and "language," focuses on foundational themes in education and language development. With moderate Betweenness Centrality(5.0) and Closeness Centrality(0.058), it connects various subfields but does not dominate the network. Cluster 2, defined by keywords such as "rights," "recognition," "communication," and "outcomes," is pivotal to discussions on social justice and policy. It exhibits the highest Betweenness Centrality(5.5) and Closeness Centrality(0.061), reflecting its role as an interdisciplinary bridge, with a notable PageRank(0.0638) highlighting its influence in integrating justice, communication, and public policy research.

Cluster 3, the largest cluster, includes terms such as "sign-language," "acquisition," "skills," "students," "bilingualism," "cochlear implantation," and "deaf-children." Despite its lower Betweenness Centrality(1.71), its higher Closeness Centrality (0.110) emphasizes its focus within its domain, while a moderate PageRank(0.0587) suggests influence in applied research on bilingualism, language acquisition, and strategies for the deaf and hard-of-hearing communities. Finally, Cluster 4, featuring "cochlear implants" and "preschool," represents a focused niche in early childhood education and technological interventions. With zero Betweenness Centrality, it is isolated within the network but achieves maximum Closeness Centrality (1.0), reflecting tight integration in its domain, supported by a moderate PageRank (0.059). This cluster underscores the importance of early interventions in supporting language and communication development for children with hearing impairments.



[Figure 1] Co-occurrence network analysis of AUK and KWP

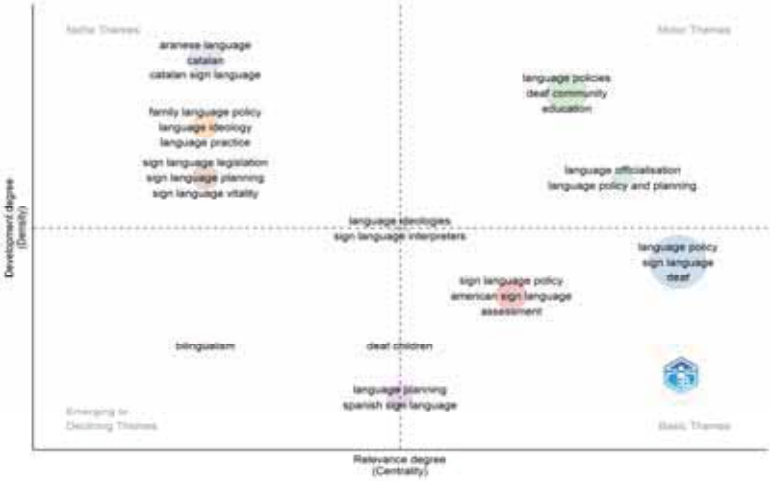
Together, these clusters demonstrate the interconnected yet diverse nature of research within the field. Cluster 1 highlights the importance of integrating sign language into early childhood and mainstream education systems to promote linguistic equity. Cluster 2 indicates that policy enforcement agencies must enhance their legal frameworks to ensure the full recognition of sign languages as equal to spoken languages and promote campaigns that address social stigma and advocate for the linguistic rights of Deaf individuals. Cluster 3 focuses on applied research in language acquisition, skills development, and bilingual education, particularly addressing Deaf and hard-of-hearing students.

3.2 Thematic map analysis

Thematic map analysis is a bibliometric technique that finds, visualizes, and elucidates the principal issues addressed in extensive academic literature. This strategy provides a comprehensive understanding of the study's scope and distinctly clarifies significant patterns and areas requiring further inquiry (Handoyo, S. ,2024, p.15; Singh and Dhir, 2015, p.144). Themes are employed in bibliometric research to categorize and analyze the multitude of subjects inside the literature. The themes are categorized into four types: basic, motor, niche, and emerging/declining. Each theme type serves a crucial role in the development, expansion, and organization of the research domain. Basic themes underscore the essential domains of the inquiry. Motor themes delineate the most dynamic and impactful domains. Niche themes reveal specialized or inadequately examined domains. Emerging themes indicate possible future trajectories. Conversely, declining themes refer to research issues that have ceased to attract scholarly interest.

[Figure 2] is a thematic map[9] that provides a detailed view of the visual graphic generated from KWP data extracted from Bibliometrix. This visualization reveals four quadrants—Motor Themes, Niche Themes, Emerging or Declining Themes, and Basic Themes—each representing the developmental stage and significance of research topics.

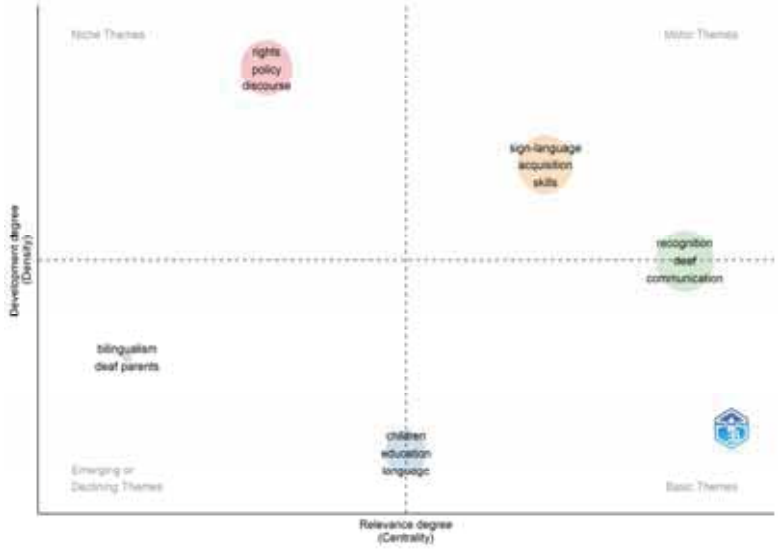
9) The thematic map provides a complementary perspective to the co-occurrence analysis by categorizing themes based on their centrality (relevance) and density (development). These motifs can be categorized into four quadrants on a two-dimensional graph, utilizing density and centrality as the two axes(Singh and Dhir, 2015:144).



[Figure 2] Thematic map quadrant of AUK

Keywords like "language policies," "deaf community," and "education" in the Motor Themes quadrant indicate topics that are both highly relevant and well-developed, driving research in the field. The Niche Themes quadrant, which includes "aranese language," "catalan sign language," and "family language policy," highlights specialized and highly focused areas with strong internal development but limited interdisciplinary relevance. In the Basic Themes quadrant, foundational topics such as “language policy”, “sign language”, and “deaf” exhibit high centrality but low density, indicating that they form the groundwork for this field. Lastly, the Emerging or Declining Themes quadrant contains keywords like "bilingualism" and "language planning," signaling themes that are either gaining momentum or waning in influence.

[Figure 3] presents a thematic map that offers an extensive illustration of the visual graphic derived from AUK data obtained through Bibliometrix.



[Figure 3] Thematic map quadrant of KWP

In the Motor Themes quadrant, keywords such as "sign-language," "acquisition," and "skills" emerge as both highly relevant and well-developed, which exhibit high centrality and hign density indicating their pivotal role in driving advancements in other field. The Niche Themes quadrant features "rights," "policy," and "discourse," representing specialized areas with strong internal focus but limited interdisciplinary connectivity. These topics highlight concentrated scholarly efforts on social justice and language policy. In the Basic Themes quadrant, foundational concepts such as "recognition," "deaf," and "communication" are central to the research field but remain less developed, underscoring their significance as groundwork for future exploration. Lastly, the Emerging or Declining Themes quadrant includes keywords like "bilingualism" and "deaf parents," suggesting areas either gaining relevance or losing prominence.

Compared to the co-occurrence analysis, which identifies networked relationships between keywords, the thematic map offers a macro-level overview of research maturity and thematic importance, providing a strategic lens for understanding established areas and potential growth directions within the academic landscape.

4. Discussion

The co-occurrence network analysis reveals distinct differences between AUK and KWP data, particularly in their data sources, centrality metrics, and thematic focus. AUK are explicitly provided by the authors, reflecting the core focus of their individual studies. As a result, they are narrower in scope and more specific, often highlighting niche topics and specialized terms. These keywords tend to form tightly clustered and specialized groups with high Closeness Centrality, indicating strong internal connectivity within themes like "language ideology," "deaf," and "language officialisation." However, their Betweenness Centrality is generally lower, as they primarily serve niche roles rather than acting as bridges between broader research domains. For example, Cluster 2 in AUK exhibits the highest Betweenness Centrality (4.33), reflecting its role in connecting specific areas such as "language policy" and "catalonia." This network structure makes AUK ideal for exploring specific research gaps and identifying trends within specialized subfields.

In contrast, KWP data are algorithmically generated from frequently cited terms in titles and references, offering a broader and more contextual overview of the research field. These keywords frequently exhibit higher Betweenness Centrality, signifying their role in connecting diverse and interdisciplinary themes. For instance, Cluster 2 in KWP, featuring terms like "rights," "recognition," and "communication," has the highest Betweenness Centrality (5.5), emphasizing its function as a bridge between social justice and communication domains. Additionally, the Closeness Centrality of KWP terms highlights broader accessibility across the network, with clusters like "sign-language," "acquisition," and "bilingualism" connecting multiple subfields. This broader thematic scope allows KWP to highlight interdisciplinary opportunities, foundational themes, and collaborative potential, making it more suitable for understanding overarching research trends and mapping the intellectual landscape of a field. Together, the two datasets provide complementary insights, balancing domain-specific depth with interdisciplinary breadth.

Thematic maps of AUK and KWP data illustrate significant differences in their data sources, thematic emphasis, and cluster distribution, offering

complementary perspectives on the research area. Thematic maps derived from AUK reflect the authors' perspectives, focusing on specific, niche topics tied directly to individual studies. These maps capture specialized areas , such as "Catalan Sign Language," "Sign Language Legislation," and "language ideology" in Niche Themes, and foundational but underdeveloped topics like "Sign Language Policy" and "deaf" in Basic Themes. In contrast, KWP maps are generated algorithmically, offering a broader context by extracting frequently cited terms. These maps highlight wider thematic contexts, such as "children," "education," and "language" in Basic Themes, and interdisciplinary connections like "rights," "recognition," and "communication" in Motor Themes. Thematic maturity also varies between the two; AUK emphasize specific themes at varying developmental stages, with Motor Themes like "language-officialism" and "deaf community" reflecting application-driven research. On the other hand, KWP maps provide a higher-level view of thematic maturity, with Motor Themes emphasizing well-developed and highly relevant topics such as "Sign Language" and "acquisition." Together, these thematic maps offer a nuanced understanding of the research field, balancing detailed exploration of niche areas with a broader view of interdisciplinary connections and overarching trends.

The foundational clusters (Cluster 1) in both analyses (AUK and KWP) underscore the essential significance of education and early language acquisition, indicating the necessity for policies that incorporate sign language into early childhood education, teacher training programs, and bilingual educational frameworks. Advocacy-oriented clusters (Cluster 2) emphasize the imperative of legally recognizing sign languages as equivalent to spoken languages, with public initiatives to mitigate stigma and advance linguistic rights. A strong emphasis on interdisciplinary collaboration across education, advocacy, and technology can connect topic clusters and facilitate comprehensive language planning. Ultimately, synchronizing national initiatives with global best practices can enhance the legal and educational frameworks essential for preserving the linguistic and cultural variety of Deaf populations globally.

5. Conclusion

Understanding sign language policy is crucial to confronting the enduring myths and systematic injustices associated with sign languages. Despite decades of acknowledgment as authentic human languages and their validation as full languages from evolutionary and genetic viewpoints, sign languages persist in experiencing marginalization in policy and practice. The uneven position of sign languages, even in countries with legal provisions, mirrors wider societal prejudices, including oralism. These problems underscore the significance of comprehensive language policies that not only advocate for the linguistic rights of Deaf populations but also acknowledge sign languages as equivalent to spoken languages. Investigating sign language policy is essential for addressing systematic disparities, fostering the preservation and advancement of sign languages, and guaranteeing linguistic and cultural fairness for Deaf populations globally.

Network analysis in Bibliometrix provides a systematic and dynamic viewpoint, illustrating the evolution of research trends and networks across time. These findings contribute to research by identifying deficiencies and emerging trends, making network analysis an excellent tool for guiding future investigations. In co-occurrence network analysis, AUK emphasize niche and specific themes, offering a detailed view of specialized subfields. In contrast, KWP provides a broader, interdisciplinary perspective, highlighting overarching themes and connections across domains. While AUK are valuable for pinpointing precise research areas, KWP excels at identifying bridges between disciplines and understanding the larger research landscape. Together, they offer complementary insights, balancing depth and breadth in bibliometric analysis.

The thematic map analysis of both AUK and KWP data provides a comprehensive visualization of research themes, categorizing them into Motor Themes, Niche Themes, Emerging or Declining Themes, and Basic Themes. Motor Themes, such as "language policies," "sign-language," and "acquisition," are highly relevant and well-developed, driving advancements in key areas like applied linguistics, education, and social justice. Niche Themes, including "Catalan Sign language" and "rights," highlight specialized and focused areas

with limited interdisciplinary connections, reflecting concentrated scholarly efforts. Basic Themes, such as "recognition," "deaf," and "language policy," represent foundational but underdeveloped concepts. Emerging or declining themes, such as "bilingualism" and "language planning," indicate subjects that are either gaining traction or losing significance.

By integrating the findings from co-occurrence network and thematic map analyses into decision-making processes, policymakers can create evidence-based, inclusive policies that address the unique challenges and opportunities in language planning, education, and accessibility. These insights enable targeted interventions, foster interdisciplinary collaboration, and ensure that linguistic rights and cultural diversity are upheld in both national and international contexts.

References

Berwick, R. C. & Chomsky, N. (2015). *Why only us: Language and evolution.* Cambridge: MIT Press.

Brennan, M., Colville, M. D., & Lawson, L. K. (1984). *Words in hand: A structural analysis of the signs of British Sign Language.* Carlisle: British Deaf Association.

Chen, X., Xie, H., Wang, F. L., Liu, Z., Xu, J., & Hao, T. (2018). A bibliometric analysis of natural language processing in medical research. *BMC medical informatics and decision making, 18*, 1-14.

Ezugwu, A. E., Shukla, A. K., Agbaje, M. B., Oyelade, O. N., José-García, A., & Agushaka, J. O. (2021). Automatic clustering algorithms: a systematic review and bibliometric analysis of relevant literature. *Neural Computing and Applications, 33,* 6247-6306.

Ellegaard, O. & Wallin, J. A. (2015). The bibliometric analysis of scholarly production: How great is the impact? *Scientometrics, 105,* 1809－1831.

Donthu, N., Kumar, S., Mukherjee, D., Pandey, N., & Lim, W-M. (2021). How to conduct a bibliometric analysis: An overview and guidelines. *Journal of Business Research, 133,* 285-296.

Khan, M. A., Pattnaik, D., Ashraf, R., Ali, I., Kumar, S., & Donthu, N. (2021). Value of special issues in the journal of business research: A bibliometric analysis. *Journal of Business Research, 125,* 295-313.

Fan, T., Wang, X., Song, X., Zhao, G., & Zhang, Z. (2023). Research status and emerging trends in virtual reality rehabilitation: Bibliometric and knowledge graph study. *JMIR Serious Games, 11,* e41091.

Handoyo, S. (2024). Green supply chain management: A bibliometric analysis of global research trends and future directions. *Production & Manufacturing Research, 12*(1), 2422614.

Liu, C., Dai, Z., & Jhang, S.-E. (2024). Bibliometric analysis of research on gender equality in the maritime industry. *New Korean Journal of English Language and Literature, 66*(3), 171-199.

Li, J., Lei, L., & Cheng, L. (2020). Mapping evaluation, appraisal and stance in discourse (2000－2015): A bibliometric analysis. *Glottotheory, 10*(1-2), 31-55.

Laengle, S., Merigó, J. M., Modak, N. M., & Yang, J.B. (2020). Bibliometrics in operations research and management science: A university analysis. *Annals of Operations Research, 294*, 769-813.

Lee., et al. (forthcoming) A bibliometric analysis of research trends in spoken and sign language policies.

Passas, I. (2024). Bibliometric analysis: The main steps. *Encyclopedia, 4*(2), 1014-1025.

Ragazou, K., Passas, I., Garefalakis, A., & Dimou, I. (2022). Investigating the research trends on strategic ambidexterity, agility, and open innovation in SMEs: Perceptions from bibliometric analysis. *Journal of Open Innovation: Technology, Market, and Complexity, 8*(3), 118.

Reagan, T. (2006). Language policy and sign languages. In Thomas Recento (Ed.), *An introduction to language policy: Theory and method,* (pp.329-345). Wiley: Blackwells.

Rose, H. & Conama, J. B. (2018). Linguistic imperialism: Still a valid construct in relation to language policy for Irish Sign Language. *Language Policy, 17,* 385-404.

Stokoe, W. C. (1980). *Sign language structure*. San Mateo: Annual review of

anthropology.

Tripathi, M., Kumar, S., Sonker, S. K., & Babbar, P. (2018). Occurrence of author keywords and keywords plus in social sciences and humanities research: A preliminary study. *COLLNET Journal of Scientometrics and Information Management, 12*(2), 215-232.

Wei, R. Z., Liu, X. Y., & Lyu, P. H. (2024). Bibliometrics of public administration research hotspots: Topic keywords, author keywords, keywords plus analysis. *Heliyon, 10*(21), e39352.

Zhang, J., Yu, Q., Zheng, F., Long, C., Lu, Z., & Duan, Z. (2016). Comparing keywords plus of WOS and author keywords: A case study of patient adherence research, *Journal of the Association for Information Science and Technology, 67*(4), 967-972.

Jeon, Haewon
Korea Maritime & Ocean University
727 Taejong-ro, Yeongdo-Gu, Busan 49112, South Korea
Phone: +82 010-2463-5842
Email: hwJeon@kmou.ac.kr

Received on Nov 5, 2024
Revised version received on Dec 20, 2024
Accepted on Dec 27, 2024

Sign Languages and Linguistics Convergence Research
Vol. 1. No. 2 (2024) pp.353~370

Conceptual Metaphor and Double Mapping in Chinese Sign Language

Jo, Charmhun · Park, Yubin
(Southwest University · Jeonbuk National University)

Jo, Charmhun & Park, Yubin. 2024. Conceptual Metaphor and Double Mapping in Chinese Sign Language. ***Sign Languages and Linguistics Convergence Research,*** *1*(2), 353-370. Conceptual metaphor is a linguistic mechanism that uses concrete experiences to understand and express abstract concepts. It is considered a universal linguistic phenomenon, observed not only in spoken languages but also in sign languages. However, the situation differs for conceptual metaphors derived from sign languages due to the strong association between metaphor and iconicity (Wilcox, 2000; Taub, 2001). In other words, sign languages are characterized by rich iconicity, meaning that when certain signs are extended metaphorically, they undergo double mappings involving both metaphorical and iconically related transfers. This study investigates the applicability of the double mapping model to Chinese Sign Language (CSL), which has received relatively little attention. To determine whether the double mapping model, which integrates metaphorical and iconic dimensions, is applicable within the linguistic context of CSL, this study examines the metaphorical mapping mechanism of the abstract verbFORGETin CSL as a case study. The results indicate that the sign forFORGETin CSL exhibits a layered structure of metaphorical and iconic elements, demonstrating the validity of the double mapping model for CSL. This dual-layered mapping not only enhances the expressiveness of the sign but also highlights the cognitive interplay between concrete experience and abstract concept. The findings of this study underscore the importance of considering both metaphorical and iconic dimensions when analyzing conceptual metaphors in sign languages. They confirm that the double mapping model provides a robust framework for exploring the intricate connection between metaphor and iconicity.

Key Words: Chinese Sign Language, Conceptual Metaphor, Double Mapping, Iconicity, Abstract Verb

1. Introduction

Conceptual metaphor is a linguistic device that employs concrete experiences to comprehend and convey abstract ideas. It serves as a bridge between the tangible and the intangible, enabling individuals to articulate complex ideas/concepts through familiar imagery. This is considered as a universal linguistic phenomenon that is widely observed across languages and cultures (Lakoff and Johnson 1980; Kövecses 2005).

For instance, the metaphor TIME IS MONEY illustrates how we often perceive time as a valuable resource akin to currency. This conceptualization influences many aspects of our daily lives, from how we manage our schedules to the decisions we make in both personal and professional realms. In a world where efficiency and productivity are highly prized, every minute can feel like a financial transaction, where time *spent* on one activity means less time available for another. This metaphor not only shapes our behavior but also permeates our language. Phrases such as “saving time”, “wasting time” underscore this deep-seated belief that time is a commodity subject to economic principles. We often hear the admonition, “Don't waste your time”, reflecting the idea that time, once lost, cannot be regained-a nonrenewable resource that demands careful stewardship.

In terms of source-target mapping, TIME IS MONEY as a conceptual metaphor maps our understanding of the more concrete domain of money onto the abstract domain of time. This metaphor allows us to reason about time using the familiar framework of economic transactions, value, and resource management. MONEY as a source domain is a finite resource that can be earned, spent, saved, invested, or wasted. TIME as a target domain is also perceived as a limited resource that can be used or squandered, through the metaphoric transfer processing. Hence, the TIME IS MONEY metaphor provides a framework for understanding and discussing time in economic terms, influencing both individual behavior and broader societal attitudes towards time management.

However, when it comes to sign languages, the situation is somewhat different, particularly with respect to the processing of mappings between the

source and target domains in the two conceptual domains involved. The difference is primarily evident, attributed to the strong correlation between metaphor and iconicity in the context of conceptual metaphors derived from sign languages (Wilcox 2000; Taub 2001). Essentially, sign languages are replete with iconicity, and when signs are employed metaphorically, they undergo double mappings involving both metaphorical and iconically-related transfers.

The concept of iconicity, which refers to the resemblance between the form of a linguistic item and its meaning, is a prevalent principle in both sign and spoken languages. By incorporating metaphor, iconicity enables the representation of abstract ideas through visual means. While sign languages possess a greater number of iconic elements due to their capacity to convey visual, spatial, and motor images, spoken languages are limited to presenting auditory images only (Klima and Bellugi 1979). Due to the iconicity in sign languages, some signs extend their meanings metaphorically and undergo double mappings, which are both iconic and metaphorical, as Taub (2001) pointed out. In the metaphorical mapping, more concrete concepts (source) are mapped onto more abstract concepts (target). Additionally, the source-domain concepts are iconically articulated by the handshapes, locations, and movements in signs, which constitutes the iconic mapping.

In this light, , this study aims to investigate the applicability of the double mapping model for Chinese Sign Language (CSL), which has received relatively little attention thus far. The study examines the metaphorical mapping mechanism of the abstract verb FORGET in CSL as a case study, to determine if the double mapping model, which connects metaphorical and iconic dimensions, is applicable within the linguistic context of CSL. The history of CSL research is briefly covered in Section 2, and an overview of conceptual metaphor theory is provided in Section 3. In Section 4, the relevance of iconicity to metaphor in sign language for showing a double mapping model is discussed, and the CSL abstract verb FORGET is analyzed as a case study in Section 5. Finally, Section 6 concludes with a summary of the research findings and their significance.

2. Chinese Sign Language

Chinese Sign Language (CSL) is a visual-manual language that is used by deaf individuals in China. Historical documents from China indicate that the origins of CSL can be traced back at least 100 years, and it has evolved over time through the use of symbols and facial expressions that were originally used within families and shared among neighbors (Yang, 2008). Like many other sign languages, CSL has also incorporated manually coded signs that are used for educational purposes (Yang and Fisher, 2002; Yang, 2008). CSL signers typically write and are educated in Chinese, and the influence of spoken and written Chinese on CSL is significant, similar to the influence of English on American Sign Language (ASL) (Yang and Fisher, 2002).

The development of CSL was influenced by Western education models. As stated by Callaway (2000), prior to 1887, there was no deaf education in China, and no opportunity for deaf individuals to gather and foster the growth of a sign language. However, in 1887, a former teacher from the Rochester School for the Deaf established the first school for the deaf in Shandong, China, which provided deaf individuals with the opportunity to congregate, leading to the development of sign language in China. This school utilized an oral approach, but it was the starting point for the growth of sign language in the country. During the late nineteenth and early twentieth centuries, schools for the deaf in China employed manual alphabets, such as the *Lyon* manual alphabet and manual *Zhuyinzimu,* an early Chinese pronunciation alphabet that used simple Chinese characters or parts of Chinese characters, as well as CSL, to teach Chinese characters (Callaway 2000).

Yang (2011) states that CSL is utilized both in mainland China and among some deaf individuals in Hong Kong, Macao, and parts of Taiwan. Chinese Sign Language features a multitude of regional variations. The primary distinction between all regional sign languages lies in the vocabulary level, which is developed by local deaf people who employ distinct signs to convey the same meaning. Generally, there are two principal types of regional Chinese sign language: Northern dialect sign language, primarily referring to Beijing, and Southern dialect sign language, mainly targeting Shanghai. According to Fischer

and Gong's (2010) research, deaf individuals in the northern region exhibit a greater reliance on Chinese mouth shapes and loaned gestures rooted in Chinese phonetics, while also demonstrating a stronger influence from Chinese word order. On the other hand, those in the southern region are known to utilize more visual gestures and facial expressions in their signing, which differs from the signing style of northern CSL.

Despite the extensive and varied linguistic landscape of CSL, there has been relatively little English-language literature published about it. However, Yau's (1990) study is recognized for shedding light on how CSL's lexical signs are produced. Yau (1990) conducted a thorough analysis of the word formation processes in CSL. According to the study, there are two primary methods for expanding the lexicon: (1) combining two or more basic signs to form a compound sign, which is known as compounding, and (2) using a lexical pantomimic sequence to denote a new notion or object in the language, which likely involves classifier constructions.

The work of Yang and Fisher (2002) on negation in CSL is noteworthy. Their study includes observations and analyses of negation expression in CSL based on interviews with 15 Chinese deaf adults. The results demonstrate that while some aspects of negation in CSL, such as negative signs, resemble those found in other sign languages, CSL has distinctive features. For instance, a negative handshape, which is phonetically equivalent to the fingerspelled letter *i* in ASL, can be expressed through a horizontal handwave and a side-to-side headshake, but these two cannot be used simultaneously. Moreover, the negative words and sentences' structures reveal that CSL has a unique grammatical system that challenges some of our assumptions about sign language negation.

In addition, Hen (2013) examined emotional metaphors in CSL. The study analyzed ten different types of emotional metaphors in CSL. By investigating their phonological parameters, such as sign shape, location, and movement, it was found that CSL shares many conceptual metaphors with Chinese. However, due to the absence of auditory experience, individuals with hearing impairments are unable to use voice as a means of forming emotional metaphors. Furthermore, the metonymic expressions of emotional metaphors in CSL can be categorized into two types of "behavioral" and "physiological", which exhibit a

double mapping. This is linked to the iconicity and cognitive economy of sign language expressions. The overall research suggests that the similarities between the emotional metaphors of Chinese and CSL are greater than the differences. This is because individuals with hearing impairments can gain experiences from alternative sensory channels and are influenced by the same culture as hearing people.

The number of linguistic studies on the concept of double mapping in CSL metaphors is limited in English-language literature. This dearth of research leaves a considerable part of the global community uninformed about its distinctive characteristics and the cultural context in which it flourishes. By conducting this research, I will fill this gap. More extensive research and documentation in English would not only improve comprehension and appreciation of CSL but also encourage cross-cultural exchange and strengthen the global deaf community.

3. Conceptual metaphor theory

Metaphor has traditionally been viewed as a linguistic device rather than a conceptual issue, as in the work of Aristotle. However, Lakoff and Johnson (1980) challenged this perspective by positing that metaphor is not only a matter of language use, but also a reflection of human conceptual mechanism. Their theory has been widely accepted for over three decades (even if it is not without its limitations, as Engstrøm (1999) acknowledges). Turner (1987), for instance, strongly supports their view by arguing that metaphor is not restricted to words, but is instead a fundamental aspect of cognition that influences all human thoughts and actions, encompassing both everyday and poetic language.

Metaphorical understanding and experience, as posited by Lakoff and Johnson's conceptual metaphor theory, involve comprehending one kind of thing in terms of another, thereby allowing for the understanding of one domain of experience in terms of another. The cognitive approach to metaphor is characterized by three fundamental claims: the ubiquity, systematicity, and conceptual nature of metaphor. First, the synchronic and diachronic prevalence of metaphors across every language refutes the notion that they only exist in a

specific language at a specific time. Second, metaphoric concepts are structured systematically, implying the systematic use of metaphoric phenomenon. Lastly, the conceptual nature of metaphors underscores their thorough conceptual basis, rather than being solely a problem of language.

The need to elaborate on the structure of metaphor in light of Lakoffian theory is essential. According to this theory, metaphor is based on cross-modal mapping from the source to the target modality. Generally, three characteristics are noted in the structure of conceptual metaphor: unidirectionality, partial structuring, and invariance. The unidirectional feature of conceptual metaphor suggests that the cross-domain transfer is semantically unidirectional, with the source domain always being more concrete than the target domain. However, this feature seems to be overgeneralized in some cases, as exceptions exist (see Wu 2007).

In the "partial structuring" aspect, it is stated that when the source mode is applied to the target mode in a metaphor, only some of the properties of the source are transferred to the target, and not all of them. For instance, in the metaphor LIFE IS A JOURNEY, not all of the properties of journey are mapped onto the target of life, but only some of them are. Additionally, the characteristic of "invariance" indicates that conceptual mappings maintain a consistent structure during the process (Lakoff 1990). As Lakoff (1990: 39) explains, "Given that all metaphorical mappings are partial, the portion of the source domain structure that is mapped preserves cognitive typology (though, of course, not all the cognitive typology of the source domain need to be mapped)".

In summary, cognitive linguistics posits that our comprehension is based on the entirety of our experiences and not on individual concepts. Moreover, a metaphorical association is a linking relationship at the level of ideas, and this linkage occurs between two autonomous domain of the source and target domains (Lakoff and Johnson 1980). Furthermore, these mappings are typically one-sided and from a more concrete domain to a more abstract domain, and are not random but are rooted in the body and physical experiences in the cultural world (Yu 2003). Lastly, as Lakoff and Turner (1989) pointed out, one of the main tenets of the theory of conceptual metaphor is that poetic metaphors are not fundamentally different from the metaphors in everyday language, in that they both utilize the same cognitive mechanism, but with variations in extension,

elaboration, and combination.

In this context, the use of conceptual metaphor is widely recognized as a pervasive linguistic phenomenon that occurs not only in spoken languages but also in sign languages. However, there are differences in the way that metaphors derived from sign languages are treated, due to the strong connection between metaphor and iconicity (Wilcox 2000). In sign languages, certain metaphorical signs tend to undergo a process known as double mapping, which involves both metaphorical and iconically-related mappings (Taub 2001). This research examines the potential utility of the double mapping model within the context of CSL, an area that has not been extensively explored thus far, by drawing on the mapping principles of conceptual metaphor theory.

4. Iconicity and double mapping

In a nutshell, iconicity refers to the resemblance between a sign or form and its referent or object. It is well-documented that sign languages possess a greater number of iconic elements than spoken languages, as the visual, spatial, and motor images that are present in sign languages are more conducive to presenting such images than the auditory images that are present in spoken languages (Klima and Bellugi 1979).

The study of conceptual metaphors, which involve using one domain of experience to describe or reason about another domain (Lakoff and Johnson 1980; Lakoff 1992), has revealed the prevalence of metaphors linked with iconicity in sign languages (Wilbur 2005). While such metaphors are possible but rare in spoken languages, the pervasive iconicity of sign languages makes this phenomenon more common. In fact, metaphor without iconicity is a rarity in American Sign Language (ASL) and other sign languages (Wilbur 1990). Due to the iconicity in sign languages, certain signs can extend their meanings metaphorically and undergo double mappings, which are both iconic and metaphorical in nature (Taub 2001). To put it simply, double mapping refers to the simultaneous use of iconicity and metaphor in a single sign, thereby enriching its meaning by utilizing both visual resemblance and abstract analogy. This dual-layering of meaning can produce signs

that are both illustrative and conceptually rich.

As an illustration, communication is frequently expressed metaphorically as sending an object in many languages, utilizing a metaphor COMMUNICATION IS SENDING (Lakoff and Johnson 1980), in which successful communication is characterized as successfully transmitting an object to other people. In ASL, a substantial number of lexical signs, such as INFORM, COMMUNICATE, OVER-OUR-HEAD rely on this metaphor. Examining British Sign Language (BSL), Brennan (1990) has also identified a substantial number of signs that utilize this metaphor. It is clear that these signs involve two conceptual transfers, as Taub (2001) indicated. The first transfer is between the source and target domains, while the second transfer is between the source-domain image and phonetic form.

More specifically, the mechanism of double mapping from metaphors connected with iconicity in sign languages is particularly evident in the example of I-INFORM-YOU from ASL (Taub 2001). In American Sign Language (ASL), the I-INFORM-YOU construction serves as a prime illustration of a directional verb, in which the movement and orientation of the verb indicate the subject and object of the action. As depicted in Figure 1, the sign commences with both hands oriented towards the first-person subject, utilizing the ASL Flat-O handshapes. The dominant hand, featuring the Flat-O handshape, makes contact with the forehead. Subsequently, both hands move away from the first-person subject, extending outward towards the person being informed, typically following a slight diagonal or direct line based on the relative positioning. Ultimately, the Flat-O handshapes on both hands transform into open palms as both hands approach the recipient.



[Figure 1] I-INFORM-YOU in ASL (Taub 2001)

When examining this sign metaphorically, it can be seen as a way of conveying an idea or concept (specifically, the target domain) to another person through sending an object (the source domain). Simultaneously, the source domains are represented iconically through the handshapes, locations, movements, and orientations of the sign I-INFORM-YOU. More specifically, in the context of metaphorical mapping, a concept (or an idea) is represented as an object situated within the speaker's head, while the act of conveying that concept to a listener is likened to transferring the object. Regarding iconic mapping, the Flat-O handshapes symbolize holding an object, and the action of the dominant hand with a Flat-O shape touching the forehead represents the object located in the head. The forward motion of both hands with open palms signifies the transmission of an object to another person. The complete representation of the double mapping (i.e., the iconic and metaphoric mapping) is illustrated in Figure 2, as outlined in Taub's (2001) research.

[Table 1] Double mapping mechanism of I-INFORM-YOU in ASL (Taub 2001)

TABLE 6.5. Double Mapping for I-INFORM-YOU

ICONIC MAPPING	METAPHORICAL MAPPING	
ARTICULATORS	SOURCE	TARGET
[Null]	Objects	Ideas
Forehead	Head	Mind; locus of thought
Flat-O handshape	Holding an object	Considering an idea
Flat-O touches forehead	Object located in head	Idea understood by originator
Flat-O moves toward locus of addressee and opens	Tossing an object to someone	Communicating idea to someone
Signer's locus	Sender	Originator of idea
Addressee's locus	Receiver	Person intended to learn idea

5. A case study: Analysis of CSL abstract verb FORGET

This research endeavors to explore the feasibility and universality of the double mapping model in the context of Chinese Sign Language (CSL), which has not garnered substantial attention hitherto. The investigation specifically focuses on elucidating the metaphorical mapping mechanism of the abstract verb FORGET in CSL, which the author has selected as a case study, in order to ascertain the viability of the double mapping model, a framework that interconnects metaphorical and iconic dimensions, within the linguistic domain of CSL.



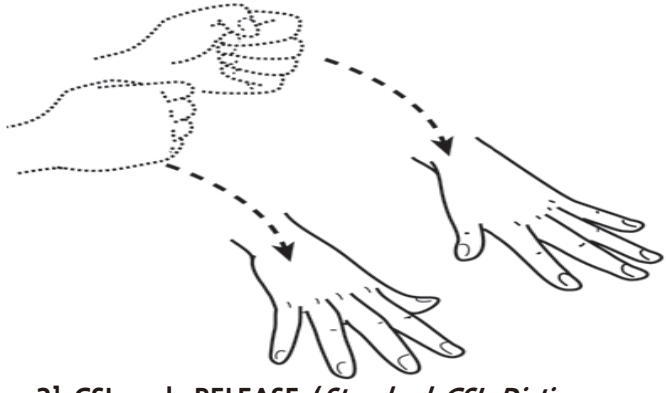
[Figure 2] CSL abstract verb FORGET (*Standard CSL Dictionary*, p. 886)

In the Chinese Sign Language sign FORGET, the dominant handshape begins at the forehead. While moving all the fingers beside the head, it changes the fingers gathered into all open-extended fingers facing backwards beside the head. This is depicted in Figure 2. If this description were to be construed as a classification of an object, it would depict a spherical object (with all fingers gathered, resembling the ASL Flat-O handshape) materializing from the head and circumnavigating it. The mapping between articulators and the source domain of concrete concepts is depicted in Table 2 below in an iconic manner.

[Table 2] Iconic mapping for CSL abstract verb FORGET

ARTICULATOR	SOURCE
[Null]	An object
Forehead	Head
All fingers gathered	Holding an object
All fingers gathered touch forehead	Object located in head
All fingers gathered move beside head	Relocate an object out of head
All fingers gathered change to all open-extended fingers beside head	Release an object out of head

In this context, it is necessary to examine the CSL verb RELEASE (放 *fang*) in comparison to the CSL verb FORGET. The verb 放 *fang* in CSL can be translated into English as "to put", "to place", "to release", or "to let go", depending on the context in which it is used. In the CSL sign RELEASE, both hands assume open palms, with all fingers extended and oriented downwards. The image chosen to represent putting down or throwing something away in people's behavior is that of opening and extending all the fingers from a fist while facing the palms downwards. This image is considered iconic, as it provides a clear and direct representation of the action. The iconic mapping is depicted in Table 3.



[Figure 3] CSL verb RELEASE (*Standard CSL Dictionary*, p. 271)

[Table 3] Iconic mapping for CSL verb RELEASE

ARTICULATOR	SOURCE
Fist handshapes on both hands	Holding anobject
Open palms with all fingers extended and oriented downwards	Putting down or throwing an object away

Unlike the CSL verb RELEASE, which generally depicts a physical action, the CSL verb FORGET represents a more abstract concept. Specifically, it means "to be unable to recall or think of something". When one considers signs, such as I-INFORM-YOU in ASL, as previously mentioned, which manifest classifier descriptions of objects moving towards or away from the head and pertain to the exchange of ideas, there is compelling evidence for a metaphorical mapping between the domains of sending objects and conveying ideas. The FORGET sign in CSL likewise entails a metaphorical mapping between the source and target domains, as well as an iconic mapping between the articulators and the source domain, as indicated in Table 2. Specifically, this sign represents a metaphorical mapping between the domains of releasing objects as the source and failing to recall ideas or thoughts as the target.

Therefore, the overall mapping correspondences generated by CSL sign FORGET can be depicted in Table 4, which illustrates a double mapping distribution. This table demonstrates how each articulatory element of FORGET corresponds to an element of the source domain through iconic mapping, and then to an element of the target domain through metaphoric mapping. The signer's location corresponds to the communicator's location. The fingers that are gathered together correspond to holding an object, which indicates the thought or information to be conveyed or remembered, while the forehead corresponds to the head entailing the object, which signifies the location of that thought. The movement of the gathered fingers in space corresponds to the process of moving the object out of the head, which suggests the difficulty in recalling the thought. When all the fingers are open and extended alongside the head, it corresponds to releasing the object out of head, which represents the ultimate failure of recalling the thought for communication purposes.

[Table 4] Double mapping for CSL abstract verb FORGET

Iconic mapping		Metaphorical mapping
ARTICULATOR	SOURCE	TARGET
[Null]	An object	A thought
Forehead	Head	Locus of thought
All fingers gathered	Holding an object	Considering a thought
All fingers gathered touch forehead	Object located in head	Thought generated by originator
All fingers gathered move beside head	Relocate an object out of head	Difficulty in recalling thought
All fingers gathered change to all open-extended fingers beside head	Release an object out of head	Failure of recalling thought

According to Taub (2001), it is not necessary for signs that share a metaphorical source-target mapping to also share an iconic source-articulator mapping. For instance, the ASL sign I-INFORM-YOU (refer to Figure 1 and Table 1) demonstrates this concept. In this sign, the Flat-O handshapes commence at the signer's forehead and move towards the recipient's location, while simultaneously spreading the fingers open. This sign does not have a physical articulator that corresponds to the object in the source domain and the idea in the target domain. Instead, the Flat-O classifier's handshapes are used to show the manipulation of a (flat) object iconically, with the object itself being implied rather than explicitly stated. Thus, in both the ASL sign I-INFORM-YOU and the CSL sign FORGET, the moved object displays the concept of an idea or thought, independent of its representation.

6. Conclusion

This paper assessed the usefulness and universality of the double mapping model in relation to the metaphorical structure of CSL. The double mapping model links the metaphorical and iconic elements of language. To determine its suitability within the context of CSL, this study analyzed the metaphorical representation of the abstract verb FORGET as a case study. The findings reveal that the sign for FORGET in CSL comprises a complex arrangement of metaphorical and iconic components, suggesting that the double mapping model is applicable to CSL.

According to the study's results, it can be observed that the combination of metaphor and iconicity in sign languages distinguishes them from spoken languages and enhances the cognitive and communicative experiences of their users. This distinct characteristic emphasizes the significance of taking into account the characteristics specific to the modality of language in linguistic research and underscores the remarkable versatility of human communication. Furthermore, the double-mapping model provides a valuable means of elucidating metaphorical and iconic phenomena in sign languages. A single-mapping model, which characterizes signs in terms of a direct mapping between articulators and an abstract conceptual domain, risks overlooking the source-target mapping and the resemblance between the source-articulator mappings and those utilized by the sign language's productive classifier forms (Taub 2012).

In addition, it is worth noting that metaphorical-iconic words and constructions also occur in spoken languages and can be addressed using a double mapping and the analogue-building process analogous to that employed for metaphorical-iconic signs. For instance, in English, metaphorical iconicity can be observed in lengthening to signify emphasis, such as "a baaaad idea" (see Okrent 2002). Further research is necessary to explore this subject in greater depth in the future.

References

Brennan, M. (1990). *Word formation in British Sign Language.* Stockholm: Stockholm University Press.

Callaway, A. (2000). *Deaf children in China.* Washington, DC: Gallaudet University Press.

Engstrøm, A. (1999). The contemporary theory of metaphor revisited. *Metaphor and Symbol, 14*(1), 53-61.

Fisher, S. & Qunhu, G. (2010). Variation in East Asian Sign Language structures. In Diane Brentari (Ed.), *Sign languages (Cambridge language survey series)*, (pp.502-521). Cambridge: Cambridge University Press.

Klima, E. & Bellugi, U. (1979). *The signs of language.* MA Thesis. Harvard University Press.

Kövecses, Z. (2005). *Metaphor in culture: Universality and variation.* Cambridge: Cambridge University Press.

Lakoff, G. (1990). The invariance hypothesis: Is abstract reason based on image-schemas? *Cognitive Linguistics, 1*, 39-74.

Lakoff, G. (1992). The contemporary theory of metaphor. In Andrew Ortony (Ed.), *Metaphor and thought,* (pp.202-251). Cambridge: Cambridge University Press.

Lakoff, G. & Johnson, M. (1980). *Metaphors we live by.* Chicago: The University of Chicago Press.

Lakoff, G. & Turner, M. (1989). *More than cool reasoning: A field guide to poetic metaphor.* Chicago: The University of Chicago press.

Okrent, A. (2002). A Modality-free notion of gesture and how it can help us with the morpheme vs. Gesture question in sign language linguistics (or at least give us some criteria to work with). In Richard Meier., Kearsy Cormier., & David Ouinto-Pozos (Eds.), *Modality and structure in signed and spoken languages,* (pp.175-198). Cambridge: Cambridge University Press.

Standard CSL Dictionary. (2019). Beijing: Huaxia Publishing House.

Taub, S. F. (2001). *Language from the body: Iconicity and conceptual metaphor in American Sign Language.* Cambridge: Cambridge University Press.

Taub, S. F. (2012). Iconicity and metaphor. In Roland Pfau, Markus Steinbach, & Bencie Woll (Eds), *Sign language: An international handbook,* (pp.388-412). Berlin: Walter de Gruyter.

Turner, M. (1987). *Death is the mother of beauty: Mind, metaphor, criticism.* Chicago: The University of Chicago Press.

Wilbur, R. B. (1990). Metaphors in American Sign Language and English. In William Edmondson and Fred Karlsson (Eds.), *SLR 1987: International symposium on sign language research, Finland*, (pp.163-170). Hamburg: Signum.

Wilbur, R. B. (2005). A reanalysis of reduplication in American Sign Language. In Bernhard Hurch (Ed.), *Studies on reduplication,* (pp.595-623). Berlin: Mouton de Gruyter.

Wilcox, P. P. (2000). *Metaphors in American Sign Language.* Washington, DC: Gallaudet University Press.

Wu, S. (2007). A *corpus-based synchronic comparison and diachronic interpretation of lexicalized emotion metaphors in English and Chinese.* Ph.D. Dissertation. Lingnan University.

Yang, J. (2008). Sign language and oral/written language in deaf education in China. In Carolina Plaza Pust & Esperanza Morales-López (Eds.), *Sign bilingualism, language development, interaction, and maintenance in sign language contact situations,* (pp.297-331). Amsterdam: John Benjamins.

Yang, J. (2011). Social situations and the education of deaf children in China. In Gaurav Mathur & Donna Jo Napoli (Eds.), *Deaf around the world, the impact of language,* (pp.467-486). Cambridge: Cambridge University Press.

Yang, J. & Fischer, S. D. (2002.) Expressing negation in Chinese Sign Language. *Sign Language & Linguistics 5*(2), 167-202.

Yau, S.-C. (1990). Lexical branching in sign language. In Susan D. Fischer & Patricia. Siple (Eds.), *Theoretical issues in sign language research 1*, (pp.261-278). Chicago: The University of Chicago Press.

Yu, N. (2003). Synaesthetic metaphor: A cognitive perspective. *Journal of Literary Semantics, 32*(1), 19-34.

Jo, Charmhun
Associate Professor
College of International Studies
Southwest University
2 Tiansheng Rd., Beibei, Chongqing, 400715 China
Phone: +86 17880209501
Email: jch337@hotmail.com

Park, Yubin
Lecturer
Department of Chinese Language & Literature
Jeonbuk National University
567 Baekje-daero, Deokjin-gu, Jeonju-si, Jeonbuk State, 54896 Korea
Phone: +82 010-3089-6023
Email: et7319@naver.com

Received on Nov 30, 2024
Revised version received on Dec 11, 2024
Accepted on Dec 27, 2024

Sign Languages and Linguistics Convergence Research
Vol. 1. No. 2 (2024) pp.371~404

A Global Bibliometric Analysis of Sign Language Research: Trends and Technological Evolution*

Lee, Sunghwa · Jhang, Se-Eun
(National Korea Maritime & Ocean Unviersity)

Lee, Sunghwa & Jhang, Se-Eun. 2024. A Global Bibliometric Analysis of Sign Language Research: Trends and Technological Evolution. ***Sign Languages and Linguistics Convergence Research,*** *1*(2), 371-404. This study presents a comprehensive bibliometric analysis of global sign language research, focusing on key contributors, thematic trends, and the integration of technology over time. Based on 8,784 records from the Web of Science database and analyzed using Biblioshiny, the study identifies key authors, including Karen Emmorey, Bencie Woll, and Susan Goldin-Meadow, as well as leading institutions such as the University of California system and the Rochester Institute of Technology. The results reveal three distinct research phases: the founding phase (1989-2001), the growth and expansion phase (2002-2015), and the maturity and technology integration phase (2016-2024). These phases mark a progression from early linguistic research to interdisciplinary and technology-driven studies. A comparative analysis of authors' keywords and Keywords Plus indicates that Keywords Plus offers a broader perspective, capturing emerging trends, particularly in machine learning and sign language recognition technologies. Furthermore, the study highlights increasing contributions from countries such as China, India, and Korea, reflecting greater diversity and international collaboration. Thematic mapping illustrates a shift from foundational topics, such as accessibility and language structure, to contemporary themes emphasizing cognitive science and technological applications. These findings provide a

* Sunghwa Lee is the first author and Se-Eun Jhang is the corresponding author. We sincerely thank the two anonymous reviewers for their invaluable comments and suggestions, which greatly enhanced the quality of the paper.

roadmap for future research, particularly in promoting accessibility through technology and fostering inclusive global collaboration in sign language research.

Key Words: Global Sign Language Research, Bibliometric Analysis, Author Keywords, Keywords Plus, Thematic Evolution, Trend Topics

1. Introduction

Sign language research has grown considerably over the last few decades, reflecting an expanding academic interest that spans linguistics, accessibility, education, and cognitive science. The recognition of sign languages as fully developed linguistic systems has increased, leading to a broader scope of research that now includes the intersections of technology, education, and social inclusion (De Vos & Pfau, 2015). Studies on sign languages-particularly American Sign Language (ASL)-have documented this growth, with bibliometric analyses identifying key contributors, trends, and shifts in research focus (Zaidman-Zait & Jamieson, 2007; Chen & Deng, 2021). However, the influence of sign language studies beyond the Western context, along with the role of emerging technologies such as machine learning and sign language recognition systems, has not been fully captured in existing literature.

Bibliometric analysis, which examines academic literature through quantitative methods like citation and keyword analysis, provides a powerful framework for understanding the development of a research field (Aria & Cuccurullo, 2017; González-Alcaide & Valderrama-Zurián, 2015). By mapping relationships among key authors, topics, and institutions, bibliometric methods can reveal thematic trends and illustrate how interdisciplinary fields influence research (Zhang et al., 2016). In particular, authors' keywords and keywords plus are invaluable in these analyses, enabling researchers to track author-selected themes, which reflect the specific focus of individual studies, alongside broader trends derived from cited references (Garfield & Sher, 1993). Studies in related fields, such as deaf education, bilingualism, and second language acquisition, underscore the importance of these methods in highlighting interdisciplinary collaboration and

emerging technologies that shape language research (Chen & Deng, 2021; González-Alcaide & Valderrama-Zurián, 2015; Khodadadian & Marashi, 2019).

Despite the insights offered by previous bibliometric studies, a comprehensive bibliometric analysis focused solely on sign language research remains limited. The rise of global sign language studies and advances in artificial intelligence and language recognition technology indicate a need for a broader and more current bibliometric examination. Addressing this gap, this study provides a global bibliometric analysis of sign language research, examining its evolution, key contributors, and emerging trends. Specifically, the study addresses the following research questions:

(i) How have key authors, institutions, and countries influenced the landscape of global sign language research over time?
(ii) What major trends in research output, citation patterns, and thematic periods define the evolution of sign language studies?
(iii) How have thematic trends and research focuses in sign language studies evolved over time, as revealed through keyword analysis and thematic mapping?

By addressing these questions, this study provides a detailed overview of the current state and potential future directions of sign language research, underscoring key areas for further exploration and international collaboration.

The following sections are structured as follows: Section 2 reviews prior bibliometric studies in the field of sign language research, identifying key contributions and gaps that this study seeks to address. Section 3 details the methodology, describing the data collection and processing methods used for this bibliometric analysis. Section 4 presents the main findings, including an analysis of influential authors, institutions, and countries; identification of major trends in research output across distinct thematic periods; and insights into thematic dynamics through a comparative analysis of authors' keywords and keywords plus. Section 5 summarizes these findings by addressing critical issues raised in the three research questions and discussing implications for the field. This final section concludes the study by outlining key contributions and offering directions for future research in sign language studies.

2. Literature Review

Bibliometric analyses have been increasingly applied to examine trends, key contributors, and thematic shifts in academic research fields, including sign language studies. This quantitative method involves the statistical analysis of publication metadata, such as keywords, authorship, citations, and institutional affiliations, to uncover patterns and relationships within a body of literature (Garfield, 1979; Small, 1999; Donthu et al., 2021). By leveraging tools like trend topics analysis, thematic map analysis, and thematic evolution analysis, bibliometric studies uncover patterns and relationships within the literature, enabling researchers to identify thematic trends, key contributors, and the evolution of research fields over time.

However, the use of bibliometric methods specifically in the area of sign language remains relatively limited. Existing studies have primarily focused on linguistic, educational, and cognitive aspects of sign language but lack a comprehensive examination of thematic trends over time using bibliometric techniques (Chen & Deng, 2021; Garfield & Sher, 1993). This section provides an overview of existing research on bibliometrics in sign language, highlighting the gaps in the literature, and reviews key studies that have examined the comparison between authors' keywords and keywords plus in bibliometric analyses. The inclusion of both keyword datasets is particularly valuable, as it enables researchers to analyze both author-selected themes and broader interdisciplinary trends derived from cited references (Zaidman-Zait & Jamieson, 2007; Garfield & Sher, 1993).

2.1. Bibliometric Analyses on Sign Language Research

One of the earliest and most comprehensive bibliometric studies on sign language research was conducted by Zaidman-Zait and Jamieson (2007). Their analysis focused on identifying key authors, institutions, and thematic areas that had shaped the academic discourse around sign language up to that point. By examining trends in sign language studies over several decades, they identified that North America and Europe dominated the research landscape, with ASL

being the most frequently studied language. While this study provided foundational insights, it was limited by the scope of its data, which did not capture more recent technological advancements and interdisciplinary trends.

A subsequent study by De Vos and Pfau (2015) examined the typological diversity of sign languages. This study applied bibliometric methods to map research on various sign languages worldwide, offering important insights into cross-linguistic research within the field. However, like Zaidman-Zait and Jamieson, this study did not explore the more recent interdisciplinary trends involving technology, education, or the growing global collaborations in sign language studies. These gaps in both foundational studies underscore the need for updated bibliometric analyses that capture the evolution of research over time, particularly in light of technological advancements like machine learning and sign language recognition systems.

2.2. Bibliometric Analyses in Related Fields

In addition to bibliometric research focused on sign language, studies from adjacent fields such as deaf education, cognitive science, and applied linguistics offer valuable insights. For example, Chen and Deng (2021) conducted a bibliometric analysis on research related to deaf education, providing an overview of key themes, collaboration networks, and global trends. Their work revealed a strong emphasis on educational practices and policies for Deaf students, though it did not delve deeply into the linguistic aspects of sign language.

Bibliometric research in second language acquisition and bilingualism, such as the work by González-Alcaide and Valderrama-Zurián (2015) and Khodadadian and Marashi (2019), provides useful comparative frameworks for sign language studies. These studies highlight the importance of interdisciplinary collaboration and the impact of emerging technologies on language research. However, bibliometric research specifically addressing sign language within these broader contexts remains limited, indicating a gap in the literature.

A noteworthy bibliometric analysis by Liu et al. (2024) on gender equality in the maritime industry demonstrates the potential of bibliometric methods to reveal thematic evolution, research trends, and gaps in underexplored domains.

Their study spans 2003 to 2024 and tracks the progression of gender equality research in a male-dominated field, using tools like R and VOSviewer to analyze thematic shifts. The study identified a transition from broad topics such as “gender equality” to specific areas like “women’s empowerment” and “marine conservation,” emphasizing the importance of targeted policies and interdisciplinary approaches. This work highlights how bibliometric analyses can not only map research landscapes but also identify critical areas for scholarly and policy intervention, offering valuable parallels for exploring sign language research trends.

These studies collectively underline the relevance of bibliometric analyses across diverse fields while exposing a need for more focused bibliometric exploration of sign language, particularly in linguistic and cross-disciplinary contexts.

2.3. Comparison of Authors’ Keywords and Keywords Plus

In bibliometric research, the comparison between authors’ keywords and keywords plus is crucial for understanding the thematic landscape of a field. Authors' keywords are selected by researchers to directly reflect the focus of their studies, whereas keywords plus are automatically generated from the references cited in the articles, offering a broader and often more generalized set of terms.

A significant study by Zhang et al. (2016) conducted in the field of patient adherence research revealed that keywords plus generated a broader set of terms, often related to methodologies or interdisciplinary themes not explicitly captured by authors' keywords. In contrast, authors’ keywords terms were more focused and specific, reflecting the primary focus of the study. This comparison suggested that keywords plus was more effective in identifying emerging interdisciplinary trends, while authors’ keywords provided a more precise and concentrated view of the research’s core themes (Zhang et al., 2016).

Similarly, Garfield and Sher (1993) found that using keywords plus alongside authors’ keywords significantly expanded the thematic scope of bibliometric analyses, retrieving more articles and revealing broader interdisciplinary

connections. Their research emphasized that keywords plus captured topics that were not necessarily defined by the authors but were still highly relevant to the broader research network.

These studies highlight the complementary nature of authors' keywords and keywords plus in bibliometric analysis. keywords plus is particularly effective for identifying broad trends and emerging interdisciplinary connections, while authors' keywords provide specificity, reflecting the core intent of the research. The broader reach of keywords plus makes it a valuable tool for bibliometric analyses seeking to map out the full thematic scope of a field. Based on these insights, the present study uses both authors' keywords and keywords plus to conduct a comprehensive analysis of thematic trends in sign language research, aiming to identify both specific and emerging themes.

3. Data and Methodology

This section outlines the methods used to collect and process the data for the bibliometric analysis of sign language research. The process involved two main stages: Data Collection and Data Processing. These stages were conducted using the Web of Science platform for data extraction and the Biblioshiny application in R for data processing and analysis.

3.1. Data Collection: Web of Science

The dataset for this analysis was collected from the Web of Science database (www.webofscience.com) on October 14, 2024, using the search term "sign language". To ensure a focused and relevant dataset, the search was filtered by language (English) and limited to the following document types: articles, proceeding papers, review articles, book reviews, and early access publications. The time period for the search was set to 1989-2025. These criteria resulted in an initial retrieval of 8,845 records, encompassing a broad range of scholarly publications relevant to sign language research.

The data was exported in plain text format, including the full record and

cited references. This export provided key metadata fields such as author names, publication titles, abstracts, authors' keywords, keywords plus, and citation data. Keywords plus, which is automatically generated from the titles of cited references, complements authors' keywords by capturing broader thematic trends within the field. Together, these datasets enabled a comparative analysis of trends and thematic patterns in sign language research.

The metadata cleaning for citation analysis included duplicate removal to address inconsistencies or incomplete entries. Following this step, the final dataset consisted of 8,784 records, ensuring consistency and accuracy for analysis. After this step, lemmatization for authors' keywords, abstracts and keywords plus is needed to prepare the data for bibliometric analysis. The dataset underwent lemmatization using spaCy, a Python-based natural language processing library, to standardize terms by reducing different word forms (e.g., singular and plural) to their root forms.

It is important to acknowledge the limitations of the dataset. While Web of Science provides robust coverage of high-impact journals, it has inherent biases, such as favoring publications in English and potentially underrepresenting research from regions or institutions not well-covered by the database. These limitations should be considered when interpreting the findings, as the dataset may not fully capture the diversity of global research on sign language.

3.2. Data Processing: Biblioshiny

The preprocessed dataset of 8,784 records was uploaded to Biblioshiny, a web interface for the R-based Bibliometrix package, for bibliometric analysis. Biblioshiny is recognized as a reliable and effective tool for bibliometric studies due to its integration with the Bibliometrix R package, which has been extensively validated in the field (Aria & Cuccurullo, 2017). The tool provides researchers with a comprehensive suite of analytical and visualization capabilities, including the ability to examine productivity, impact, and thematic trends across large datasets. Its reliability is further underscored by its use in numerous bibliometric studies across disciplines, demonstrating its adaptability and accuracy in handling diverse datasets.

Key analyses conducted in Biblioshiny included Annual Scientific Production, Average Citations per Year, trends in Authors' Keywords and Keywords Plus, Trend Topics Analysis, Thematic Map Analysis, and Thematic Evolution Analysis. These analyses offered a detailed understanding of the productivity, impact, and thematic developments in sign language research. For example, Annual Scientific Production was calculated by aggregating the number of publications per year, providing insights into temporal trends in the field. Average Citations per Year was computed by dividing the total citations by the number of years since publication, offering a measure of the long-term academic impact of individual publications.

The primary focus of the analysis was on trending topics and thematic evolution, which examined how research themes have developed over time. These analyses used both authors' keywords and keywords plus, enabling a comparative perspective on emerging trends and established themes. Trend Topics Analysis identified frequently discussed terms across time periods, offering a snapshot of the field's evolving interests. Thematic Map Analysis categorized topics into clusters based on their centrality and density, highlighting their significance and relationships. Finally, Thematic Evolution Analysis tracked the progression of these themes across defined periods, providing a visual narrative of how sign language research has evolved.

Biblioshiny's reliability lies in its robust data processing and analytical algorithms, which ensure accurate computation of indices and visualization of trends. Indices such as the h-index and citation counts are computed using well-established bibliometric standards. For instance, the h-index reflects an author's impact by quantifying the number of papers (h) with at least h citations each, while citation counts aggregate the total number of citations received by publications or authors. These metrics provide valuable insights into the influence of researchers and publications within the field.

While Biblioshiny is a powerful tool for analysis and visualization, it does not include features for preprocessing metadata, such as duplicate removal or metadata cleaning. These preprocessing steps were completed during the earlier data collection phase to ensure the dataset's quality and consistency. Additionally, since Biblioshiny does not offer a cloud-saving option, the processed dataset was

saved in R data format using the Export Collection option. This ensured that the analysis could be revisited and extended without requiring the data to be reprocessed.

4. Results and Discussion

4.1. Key Authors, Institutions, and Countries in Sign Language Research

The following section provides a detailed bibliometric analysis of key contributions to the field of sign language research. This analysis focuses on the top 50 authors ranked by their h-index and productivity trends over time, as well as the 20 most significant institutional and national influences. By examining these metrics, the section highlights the individuals, institutions, and countries that have shaped the academic discourse surrounding sign language.

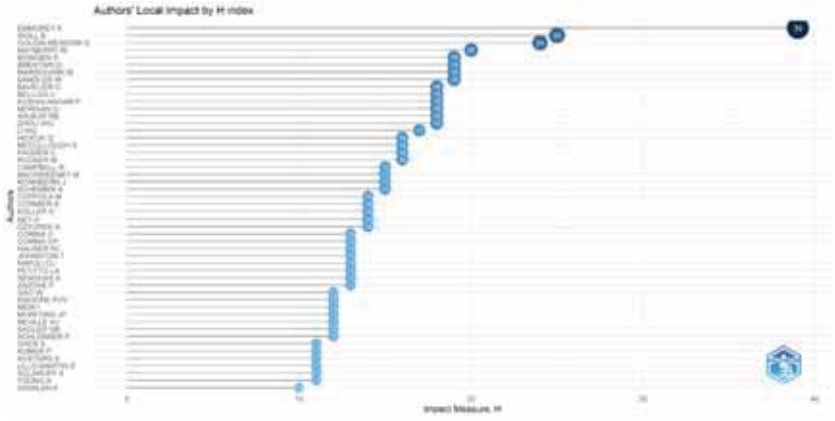
The dataset consisted of 8,784 documents, with 17,486 individual author entries. Notably, one document lacked author information, resulting in 8,783 records with valid author data. To ensure consistency and accuracy, authority control was automatically applied using Biblioshiny, standardizing author names by unifying variations such as initials, alternate spellings, and formatting (e.g., J. Kim and Kim, Jinsoo). This process minimized duplication errors and enhanced the reliability of the analysis.

These standardized data enabled a robust assessment of the most productive researchers and their contributions to the evolution of sign language research over time.

4.1.1. Authors' Local Impact by h-Index

The local h-index is a measure of both an author's productivity and the citation impact of their work within the dataset. As shown in Figure 1, Karen Emmorey leads with an h-index of 39, followed by Bencie Woll and Susan Goldin-Meadow, with h-indices of 24 and 23, respectively. These authors' high h-index values reflect their sustained contributions and the influence of their publications within the field of sign language research. Other prominent authors

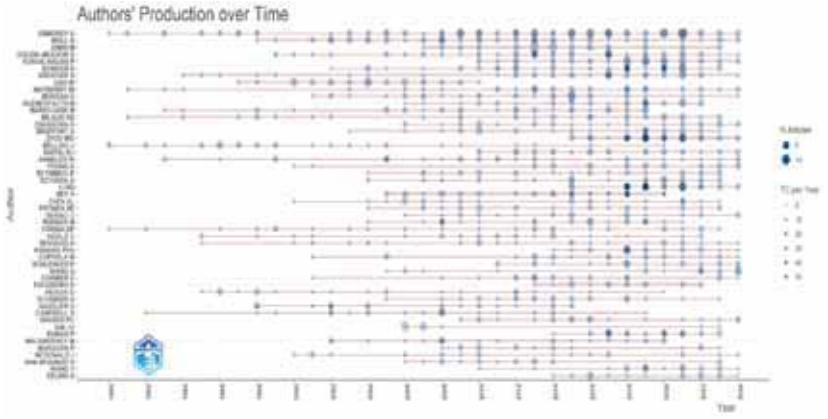
include Rachel I. Mayberry, Diane Brentari, and Marc Marschark, each with an h-index of 18 or higher, further demonstrating their importance in advancing the field. This metric highlights authors whose research has had a lasting and widespread impact, not only in terms of volume but also in terms of citations received from their peers.



[Figure 1] Authors' Local Impact by h-Index

4.1.2. Authors' Production over Time

The publication timeline of authors, as presented in Figure 2 below, reveals that Karen Emmorey and Bencie Woll have been consistently productive over the past 30 years. This continuous publication activity underscores their long-term commitment to the development of sign language research. In contrast, more recent contributors, such as Jenmi and Huerfarth, have emerged as new, significant voices in the field, contributing to its expansion in recent years. The darker, larger circles on the graph represent authors whose work has garnered high citation counts, indicating not only consistent publication activity but also substantial academic influence. For example, Karen Emmorey's publications are not only numerous but also widely cited, reinforcing her leadership role in the field.

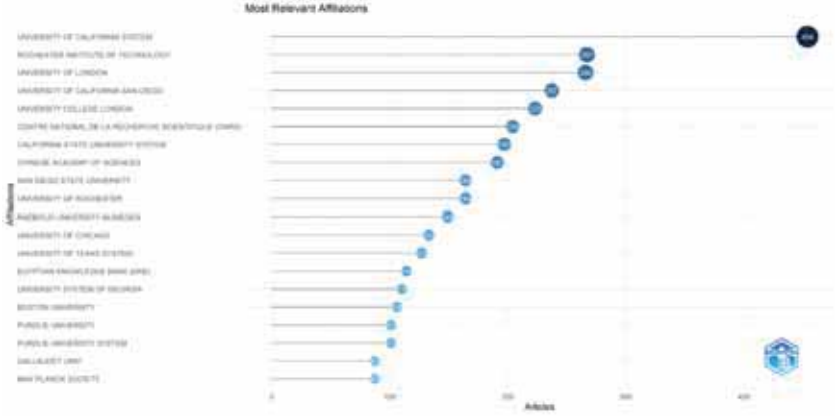


[Figure 2] Authors' Production Over Time

4.1.3. Most Relevant Affiliations

Institutional ccontributions to sign language research are also a critical factor in understanding the field's development. Using Python, we extracted and cleaned a total of 16,230 unique affiliations from the dataset by processing semicolon-separated metadata across multiple columns (C1, C3, and CA). These columns captured a variety of affiliations, including primary institutions, secondary affiliations, and corresponding author affiliations, offering a comprehensive view of the institutional landscape in sign language research. The subsequent analysis of these affiliations was conducted in Biblioshiny to identify key institutional contributors.

Figure 3 shows that the University of California System is the leading institution, with 454 publications, followed by the Rochester Institute of Technology and the University of London, with 267 and 266 publications, respectively. These institutions are recognized for their strong research programs in linguistics, cognitive science, and Deaf studies. In particular, Gallaudet University, known for its specialization in Deaf education, contributes significantly to the field. The dominance of institutions in North America and Europe illustrates the geographical concentration of expertise and resources in sign language research.



[Figure 3] Most Relevant Affiliations

4.1.4. Corresponding Authors' Countries

An analysis of the geographical distribution of corresponding authors reveals a total of 1,104 unique countries, extracted using Python by processing semicolon-separated metadata from the CL column. The subsequent analysis was conducted in Biblioshiny to identify the most significant contributing countries, as shown in Figure 4.

The USA stands out as the dominant country in terms of research output, contributing a substantial number of Single Country Publications (SCP) while also actively engaging in Multiple Country Publications (MCP). This balance reflects its central role in both domestic research productivity and international collaborations. Other major contributors include China, India, and the United Kingdom, all of which have produced significant numbers of both single-country and multi-country publications. The growing research output from these countries indicates an increasing global interest in sign language studies.

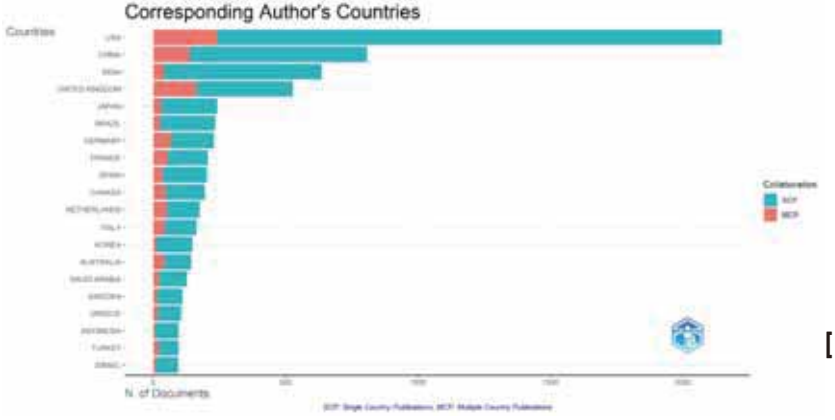
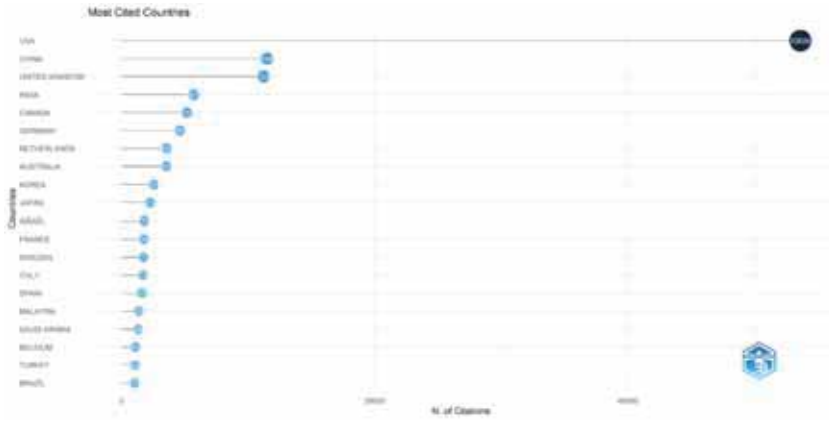


Figure 4] Corresponding Authors' Countries

4.1.5. Most Cited Countries

The citation impact of countries involved in sign language research is presented in Figure 5. The USA leads by a large margin, with over 53,000 citations, far surpassing other countries. This result confirms the USA's role as a global leader in sign language research, contributing both foundational and cutting-edge work to the field. Other countries, such as China and the United Kingdom, follow with 148 and 120 citations, respectively, reflecting their growing academic influence. Countries like India, Canada, and Germany also contribute to the global citation network, but their impact is comparatively lower, further emphasizing the USA's dominance in shaping the field's discourse.

Of particular note, Korea has also made notable strides in sign language research. While Korea's overall output is still growing, its contributions reflect an increasing focus on both linguistic studies of KSL and its integration into broader sign language research, particularly with regard to accessibility and education in Deaf communities. This emerging research trajectory offers valuable cultural and linguistic insights that enrich the global discourse on sign language.



[Figure 5] Most Cited Countries

4.1.6. Discussion and Implications

This bibliometric analysis provides key insights into the global development of sign language research, highlighting the dominant role of certain countries, institutions, and authors. The USA leads both in research output and citation impact, underscoring its leadership in shaping the academic discourse on sign language. Institutions such as the University of California System and Rochester Institute of Technology have been central to driving much of the innovation and scholarly conversation in the field.

Prominent authors such as Bencie Woll, Karen Emmorey, and Susan Goldin-Meadow stand out for their significant and sustained contributions. Their high h-index values reflect not only their productivity but also the far-reaching impact of their research, which has consistently shaped key areas of sign language studies, including linguistics, cognitive science, and language acquisition. These scholars have been pivotal in advancing both theoretical frameworks and practical applications, such as sign language education and recognition technologies.

While the USA maintains its leading position, the increasing contributions from countries such as China and India suggest a shift towards a more globally diverse research landscape. Although these countries currently lag behind the

USA in citation impact, their growing volume of publications and involvement in multi-country collaborations indicate an expanding influence that will likely diversify the field further. This rise in Multiple Country Publications (MCPs) points to a growing trend of international collaboration, which promises to bring cross-cultural perspectives and foster joint projects that could drive innovation in sign language studies.

Korea is also emerging as an important player, particularly in research on KSL and educational practices for Deaf communities. With Korea's increasing research output, particularly in KSL studies, it is positioned to contribute unique insights into cultural and linguistic diversity within the global discourse on sign language. As Korea continues to engage in international collaborations and deepen its research efforts, its influence in the global research landscape is expected to grow, providing valuable contributions to areas such as language accessibility and Deaf education.

The role of specialized institutions such as Gallaudet University is crucial in advancing both theoretical and applied research on sign language. These institutions provide a platform for scholars who are dedicated to the Deaf community, supporting research that spans linguistics, education, and technology. Continued investment in such institutions will be vital for pushing the field forward, particularly in addressing key challenges related to communication accessibility and the integration of sign language into educational frameworks.

The emergence of new contributors from regions like Asia is further diversifying the research landscape. As Korea, China, and other countries expand their contributions, we are seeing the introduction of new cultural and linguistic perspectives that are enriching the field. In particular, Korea’s research on KSL is set to play a prominent role in influencing global perspectives on sign language linguistics and Deaf education.

The dominance of a small group of authors and institutions remains, but the rise of new contributors suggests that the future of sign language research will be more collaborative and globally diverse. The evolving research landscape holds great promise for innovation and cross-cultural insights, which will further deepen our understanding of sign language's role in society and its impact on education, technology, and communication.

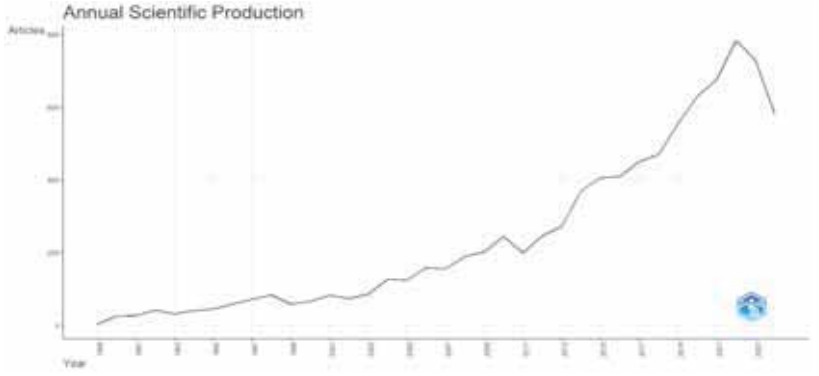
4.2. Trends in Research Output, Citation Patterns, and Thematic Periods

This section examines the research output in sign language studies by analyzing ASP and ACPY to understand trends in publication volume and academic influence. Based on these findings, three distinct research periods are proposed to capture the thematic evolution of the field and its shifting research priorities over time.

4.2.1. Annual Scientific Production and Average Citations per Year: A Comparative Analysis

This section provides a comprehensive analysis of the trends in ASP and ACPY offering insights into both the quantity of research output and the impact of these publications over time (see Figure 6 and Figure 7).

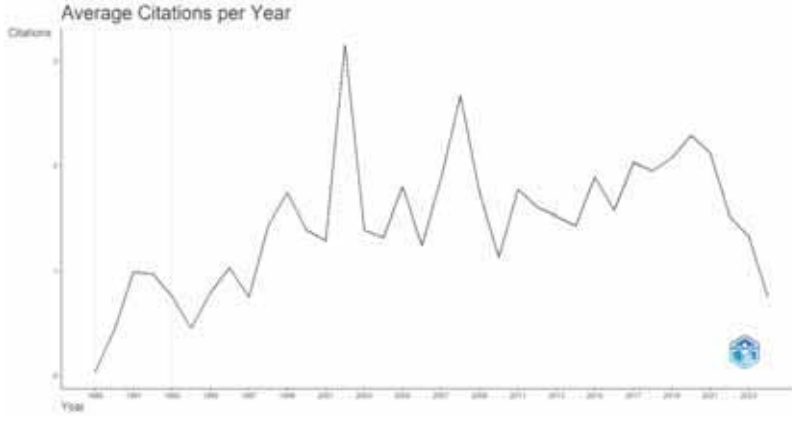
The ASP graph highlights a significant growth in research output from 1989 to 2022, particularly after 2010 when the number of published articles rose sharply. This period of expansion reflects the increasing academic interest in the field, likely driven by technological advancements, increased interdisciplinary collaborations, and rising awareness of the importance of the subject. By 2021, the annual number of articles exceeded 700, showcasing the field's rapid development and expanding global research community.



[Figure 6] Annual Scientific Production from 1989 to 2024

(as of September 27, 2024)

On the other hand, the ACPY graph displays a more fluctuating pattern. Peaks are observed in 2002, 2009, and 2020, indicating that certain key publications during these years attracted significant academic attention. These peaks suggest that while a growing number of articles were being published, a few influential studies contributed disproportionately to the citation impact, elevating the overall citation averages for those years. The 2002 and 2009 peaks may correspond to seminal works or significant breakthroughs that gained widespread recognition, influencing subsequent research.



[Figure 7] Average Citations per Year from 1989 to 2024

The discrepancy between the steady rise in ASP and the fluctuating ACPY suggests that although more articles were being published, not all of them were equally impactful in terms of citations. The steady decline in ACPY after 2020 could be attributed to several factors, including the natural citation lag for newly published articles and the sheer volume of articles diluting the overall citation impact. As more articles are published, citations are spread across a larger number of works, reducing the average citation count per article.

Both ASP and ACPY show a decline after 2021, likely due to the effects of the COVID-19 pandemic, which disrupted global research activities. The pandemic may have impacted not only the production of new research but also the ability of recent publications to accumulate citations as academic priorities

shifted and access to research resources was limited.

In summary, while ASP reflects a steady increase in the number of published articles, the ACPY indicates that the citation impact of these publications has been more variable. Peaks in citation rates during key years highlight the influence of groundbreaking studies, while the overall decline in ACPY after 2015 underscores the challenge of maintaining citation impact in an expanding research field.

4.2.2. Three Proposed Research Periods

The analysis of ASP and ACPY in Section 5.1 revealed distinct trends in both research output and citation impact over time. These trends allow us to divide the development of the field into three key periods, each characterized by shifts in research focus, volume of publications, and academic influence. Based on these insights, the field can be divided into the following periods: Foundational Stage (1989-2001), Growth and Expansion (2002-2015), and Maturity and Recent Trends (2016-2024).

(1) 1989-2001: Foundational Stage

During this period, research in the field experienced gradual growth, as indicated by a steady but modest increase in the number of published articles. This foundational period was marked by influential studies, with a significant ACPY peak around 2002, which helped shape the early theoretical frameworks of the field. There latively low research output during these years suggests that the field was still emerging, building its academic foundations.

(2) 2002-2015: Growth and Expansion

This period marks a significant increase in research activity, with ASP showing steady growth in publications. The citation impact also shows variability, with a notable peak in ACPY around 2008, reflecting the publication of impactful studies that attracted significant academic attention. The expansion of

research during these years suggests growing interdisciplinary engagement and heightened interest in the field from both academic and applied perspectives.

(3) 2016-2024: Maturity and Recent Trends

The final period is characterized by high productivity, with research output peaking around 2021 before experiencing a slight decline, likely influenced by the COVID-19 pandemic. ACPY during this period shows a peak around 2020, followed by a decline, reflecting the challenges newer publications face in rapidly accumulating citations due to the citation lag and the dilution effect of a high volume of publications.

These three periods provide a framework for conducting the thematic evolution analysis in subsequent sections, where shifts in research themes and their development over time will be examined in detail.

4.3. Technological Advancements and Emerging Interdisciplinary Themes in Sign Language Research

This section explores the evolution of research themes in sign language studies through four analyses: Trend Topics Analysis, Thematic Map Analysis, Comparative Evaluation of Authors' Keywords and Keywords Plus, and Thematic Evolution Analysis. The dataset includes 6,563 Authors' Keywords and 4,947 Keywords Plus, which were lemmatized prior to processing in Biblioshiny to standardize word forms and ensure consistency.

Trend Topics Analysis identifies frequently discussed terms over time, highlighting popular themes, while Thematic Map Analysis examines the relationships between these topics, categorizing them based on their significance and interconnectedness. The Comparative Evaluation assesses the strengths of Authors' Keywords versus Keywords Plus in capturing thematic trends. Although Biblioshiny processes metadata for visualization, it does not perform additional authority control to unify synonyms or variations; therefore, the analysis reflects the keywords as provided in the dataset following lemmatization. Finally,

Thematic Evolution Analysis tracks the development of topics across periods, illustrating shifts and changes in research focus. Together, these analyses provide a comprehensive view of the field's current state, its historical development, and emerging trends in sign language research.

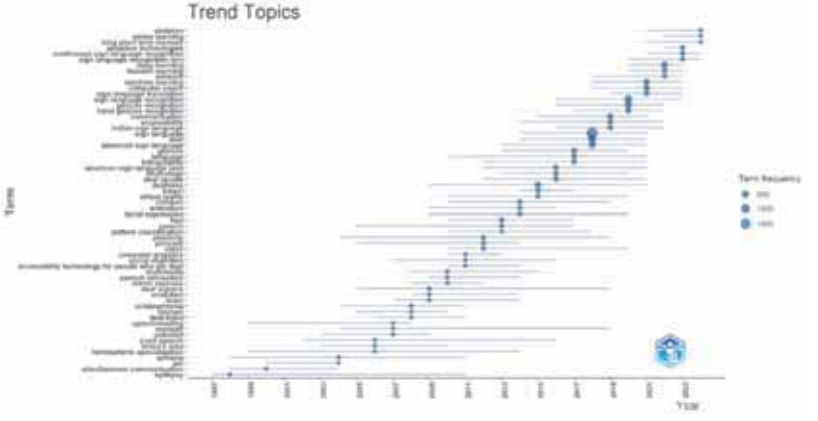
4.3.1 Comparative Analysis of Trend Topics: Author Keywords vs. Keywords Plus

This subsection provides a comparative analysis of the trend topics derived from two different keyword datasets: authors' keywords and keywords plus. Authors' keywords are chosen by the authors to represent the specific content and themes of their papers, while keywords plus are generated automatically from the titles and references of cited papers, capturing a broader, more interconnected set of terms related to the overall field of study. Studies have shown that keywords plus tends to generate a significantly larger and more comprehensive set of terms compared to Authors' Keywords (Zaidman-Zait & Jamieson, 2007; Chen & Deng, 2021; Garfield & Sher, 1993). However, in this analysis, the total number of authors' keywords (6,563) exceeded the number of keywords plus (4,947), which is an interesting result that highlights how authors' keywords may capture a wider range of specific research themes while keywords plus focuses on more interconnected topics.

The Trend Topics Analysis was conducted in Biblioshiny with the following parameters applied to both datasets: a timespan of 1989−2024, a word minimum frequency of 5, and a maximum of 3 words per year to highlight the most prominent topics. No additional text editing, such as removing specific terms or loading synonym lists, was applied, ensuring that the data were analyzed in their standardized, lemmatized form.

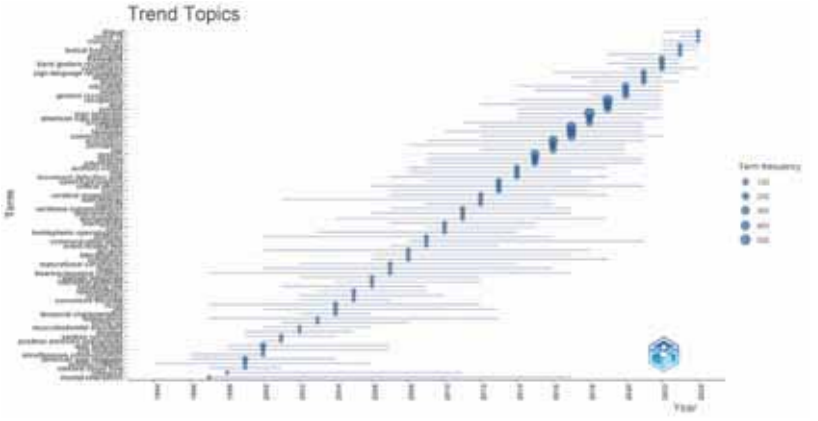
The trend topics based on author keywords emphasize themes that researchers explicitly define as central to their work. These include terms such as "sign language recognition", "gesture recognition", "machine learning", and "deafness", which highlight a strong focus on technological advancements and applied research in sign language studies (see Figure 8). The frequent appearance of terms like "American Sign Language (ASL)" and "deaf people" underscores

the continued importance of cultural and linguistic aspects within the field. Additionally, more recent terms like “sensors” and “online learning” reflect the growing integration of AI and virtual platforms in addressing the needs of Deaf communities.



[Figure 8] Trend Topics by Author Keywords

In contrast, the trend topics derived from keywords plus offer a broader view of the research landscape, encompassing not only specific study foci but also related disciplines such as neuroscience and cognitive science. Frequently occurring terms in this dataset include “deaf”, “sign language”, “children”, and “language acquisition” (see Figure 9). These topics indicate a sustained focus on educational and cognitive development within the Deaf community, as well as on the neurological and cognitive aspects of sign language processing. The presence of terms like “cerebral organization” and “speech perception” highlights the interdisciplinary connections between sign language research and broader studies in brain function and language cognition.



[Figure 9] Trend Topics by Keywords Plus

The comparison between the two datasets reveals key differences in the scope of thematic focus. Author keywords tend to highlight emerging technological themes and specific linguistic studies, whereas keywords plus captures a wider array of topics, including neurological, educational, and cognitive dimensions. This distinction is important because it reflects the different ways in which researchers and citation data define the field's boundaries. While author keywords focus on the specificities of individual studies, keywords plus highlights the interconnectedness of sign language research with adjacent disciplines.

Together, these analyses provide a comprehensive picture of the thematic evolution of sign language research. The author keyword dataset emphasizes technology-driven research and specific linguistic phenomena, while keywords plus broadens the scope to include interdisciplinary links with cognitive and neurological studies. This dual perspective enables a more nuanced understanding of the dynamic development of the field.

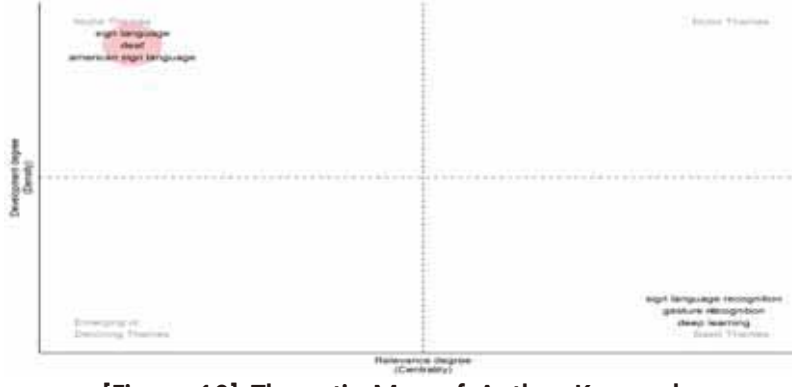
4.3.2. Thematic Map Analysis: Author Keywords vs. Keywords Plus

This subsection provides an analysis of the thematic maps derived from author keywords and keywords plus, offering insights into different aspects of

the research landscape. Thematic maps group research topics into four distinct categories: niche themes, basic themes, motor themes, and emerging or declining themes, each representing unique aspects of how research evolves within the field.

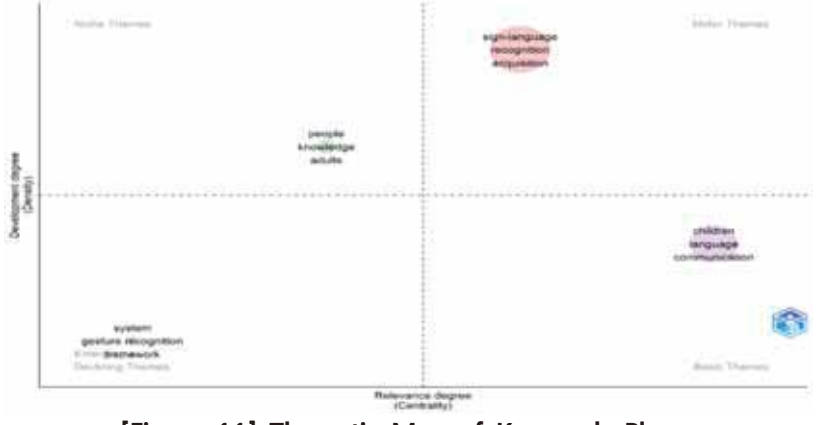
The thematic map based on author keywords reveals a strong emphasis on basic themes, particularly those related to cultural and linguistic dimensions. Dominant terms such as “sign language”, “deaf”, and “American Sign Language (ASL)” underscore the ongoing scholarly focus on cultural identity and the recognition of sign languages as legitimate linguistic systems (see Figure 1). This concentration on basic themes reflects a long-standing interest in the social and linguistic foundations of sign language, with particular attention to the Deaf community’s cultural heritage and the legitimization of sign languages within broader linguistic discourse.

Interestingly, in Figure 10, there are no terms represented in the motor themes or emerging/declining themes quadrants. This absence suggests that author-selected keywords are predominantly focused on established, foundational aspects of sign language rather than on innovation or emerging areas of research. The lack of terms in these thematic sections implies that authors prioritize foundational studies over more technology-driven or emerging topics, indicating a potential gap in research related to newer developments and interdisciplinary innovations.



[Figure 10] Thematic Map of Author Keywords

In contrast, the thematic map derived from keywords plus showcases a broader range of research topics, with frequent terms like “recognition”, “gesture”, and “acquisition” suggesting a growing focus on motor themes related to technological advancements and their practical applications (see Figure 11). This thematic structure highlights the increasing interest in how technology, particularly in areas such as gesture recognition and sign language acquisition, is being integrated into the field. These motor themes point to active engagement with machine learning and recognition software, reflecting the field’s growing emphasis on using technology to improve communication accessibility and educational methods for the Deaf community.



[Figure 11] Thematic Map of Keywords Plus

The two thematic maps reveal distinct priorities within the research landscape. The author keywords map emphasizes basic themes related to the linguistic and cultural foundations of sign language research, suggesting a deep engagement with the historical and social dimensions of the field. Meanwhile, the keywords plus map highlights motor themes associated with technological solutions and educational innovations, reflecting the field’s evolving focus on practical applications that leverage technological advancements.

4.3.3. Comparative Evaluation of Author Keywords and Keywords Plus in Thematic Analysis

Based on the analyses in 4.1 and 4.2, both author keywords and keywords plus offer distinct insights into thematic trends in sign language research. Each approach has its advantages and limitations, influencing how effectively they reveal the thematic evolution of the field.

Author keywords provide a more focused and specific representation of a paper's central themes. Since these keywords are selected by the authors themselves, they offer precise insights into the main focus of the research. This makes author keywords especially useful for capturing specific research areas, such as the cultural and linguistic dimensions of sign language, as demonstrated in 4.2. However, this focus can be limiting, as author keywords may overlook broader thematic trends or emerging interdisciplinary connections. The absence of motor and emerging/declining themes in Figure 1 highlights how author keywords may miss newer developments in the field.

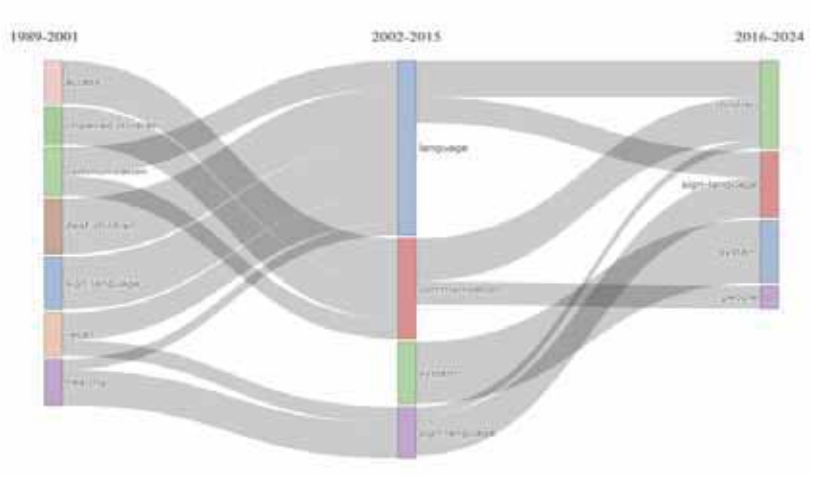
In contrast, keywords plus, which is generated automatically from article titles and cited references, provides a broader range of topics. It captures interdisciplinary connections and reveals emerging areasthat may not be explicitly highlighted by authors but are influential across the field. In 4.2, keywords plus uncovered motor themes such as gesture recognition and sign language acquisition, reflecting the growing role of technology and innovation in sign language research. The strength of keywords plus lies in its ability to identify emerging trends and interdisciplinary shifts, providing a more comprehensive view of thematic evolution. However, its broader scope can sometimes result in less precise representations of specific research focuses.

Considering these factors, keywords pluse merges as the more effective tool for tracking thematic trends and evolving areas in sign language research. It offers a more holistic understanding of the research landscape by capturing a wider array of topics, including technological advancements and interdisciplinary influences. While author keywords remain useful for gaining precise insights into specific topics, keywords plus provides the depth needed to track the dynamic shifts within the field.

In light of this, keywords plus will be used exclusively in the following section 4.3.4 Thematic Evolution Analysis, to explore the evolution of research themes over time, revealing how the field has progressed and identifying key trends that have emerged across distinct periods.

4.3.4 Thematic Evolution in Sign Language Research

The thematic evolution diagram based on keywords plus highlights the changing focus and trends in sign language research across three distinct periods: 1989-2001, 2002-2015, and 2016-2024. As discussed earlier, using keywords plus allows for capturing a broader spectrum of themes that reflect the dynamic nature of the research landscape. Figure 12 illustrates the transition in research priorities and the emergence of new themes, offering a deeper understanding of how sign language studies have evolved over time.



[Figure 12] Thematic Evolution Analysis with Keywords Plus

(i) Foundational Stage (1989-2001)

During the foundational period from 1989 to 2001, the primary themes were access, impaired children, communication, deaf children, sign language, recall,

and hearing. These keywords suggest that early research was largely focused on issues of communication accessibility for individuals with hearing impairments, particularly children. This foundational interest underscores a period when researchers concentrated on establishing basic understanding and frameworks to address the communicative needs of people with auditory impairments. The inclusion of sign language as a significant theme reflects an early acknowledgment of non-verbal modes of communication, although it was approached within a broader context of accessibility and basic communicative support. This foundational period laid the groundwork for later, more specialized studies, setting essential theoretical and practical bases for future research.

(ii) Growth and Expansion (2002-2015)

The period from 2002 to 2015 marks a phase of growth and expansion within the field, as research activity increased, and thematic interests broadened. The most prominent themes in this period were language, communication, system, and sign language. The centrality of language indicates a shift toward more generalized linguistic inquiries, suggesting that researchers had started to explore communication beyond the specific context of sign language and hearing impairments. The continued focus on communication shows sustained interest in interaction and accessibility, yet at a more systemic or theoretical level compared to the foundational period. The emergence of system as a key theme implies an increased interest in understanding communication within structured frameworks, potentially incorporating perspectives from cognitive science or educational studies. The enduring presence of sign language reflects its ongoing importance within the field, signifying that while the scope of research was broadening, the study of sign language remained a core area of interest.

(iii) Maturity and Recent Trends (2016-2024)

The most recent period, from 2016 to 2024, represents the field's maturity and the emergence of recent trends. During this phase, children, sign language, system, communication, and people emerged as central themes. The prominence

of children suggests a renewed focus on developmental and educational aspects, particularly in the context of sign language and communication. This emphasis may indicate an increasing concern with how early language exposure and accessibility impact language development and learning outcomes among children. Sign language remains a core theme, illustrating its sustained significance as a research focus across all three periods. The themes of system and communication continue to be relevant, indicating ongoing interest in structured analyses and communication accessibility within formal systems. The introduction of people as a theme highlights a shift toward studying the social dimensions of communication, suggesting that recent research is increasingly concerned with how sign language interacts with broader societal factors.

To summarize, the thematic evolution observed across these periods highlights a gradual yet profound transformation within the field. Initially, research focused on foundational issues related to accessibility and basic communication needs, particularly for children with hearing impairments. Over time, the field expanded to explore systemic and theoretical aspects of language and communication, demonstrating growing interdisciplinary engagement. In recent years, the field has matured to encompass social and developmental contexts, reflecting a comprehensive understanding of communication that considers both individual and societal factors. Throughout this evolution, sign language has remained a central focus, emphasizing its pivotal role in the field's progression and its importance as a consistent area of scholarly inquiry.

This thematic evolution provides valuable insights into how research in this field has developed over time, moving from foundational frameworks to a mature phase characterized by nuanced social, developmental, and systemic perspectives. These insights lay the foundation for further exploration of thematic trends and their implications in subsequent sections of this paper.

5. Conclusion

This study offers a comprehensive bibliometric analysis of global sign language research, examining influential contributors, thematic shifts, and the growing role of technology. The findings reveal that the landscape of sign language research has been substantially shaped by key scholars, including Karen Emmorey, Bencie Woll, and Susan Goldin-Meadow, whose contributions have driven both foundational and applied research within the field. Prominent institutions, such as the University of California System and the Rochester Institute of Technology, have played significant roles in fostering research growth and innovation. Regionally, North America has long been the primary contributor in terms of both research output and impact; however, recent and rising contributions from countries like China, India, and Korea point to an increasingly diverse and collaborative global research landscape in sign language studies.

Examining the evolution of sign language research, this study identifies three major periods: the Foundational Stage (1989－2001), the Growth and Expansion Period (2002－2015), and the Maturity and Technological Integration Period (2016－2024). The Foundational Stage was characterized by the establishment of theoretical frameworks and steady, incremental growth in research output. In contrast, the Growth and Expansion Period marked a notable increase in interdisciplinary engagement, with research productivity significantly rising during this time. The most recent period, Maturity and Technological Integration, has been defined by the application of technological tools and methodologies, such as machine learning, to address practical needs within sign language research, underscoring the field's maturation and transition into a robust, interdisciplinary domain.

Thematic analysis highlights how research trends in sign language studies have progressed from early focuses on accessibility and linguistic structure to more sophisticated, technology-driven applications. The analysis of keywords indicates a thematic shift from cultural and linguistic topics to interdisciplinary connections with cognitive science and technological innovation. Contemporary research now includes both foundational areas, such as Deaf education and sign language recognition, and emerging themes, such as machine learning and

assistive technologies. This evolution reflects the dynamic nature of the field, which is increasingly responsive to both academic advancements and the societal needs of the Deaf community.

While this study provides valuable insights, it is important to acknowledge its limitations. The dataset, sourced exclusively from the Web of Science, focuses primarily on English-language and high-impact publications, potentially underrepresenting research in other languages or from less prominent regions. Additionally, some metadata inconsistencies, such as unstandardized author names or affiliations, may have affected the precision of certain analyses despite preprocessing efforts. The reliance on Keywords Plus, which is automatically generated, could also result in missed nuances compared to fully curated metadata.

Future research could address these limitations by incorporating datasets from additional bibliometric platforms, such as Scopus or Google Scholar, to capture a broader range of publications and perspectives. Expanding the dataset to include non-English publications would also provide a more inclusive view of global research trends. Additionally, future studies could leverage advanced natural language processing techniques to enhance metadata standardization and improve the accuracy of thematic analyses. Exploring emerging topics, such as the role of AI and virtual platforms in sign language research, and conducting longitudinal studies on the societal impacts of these advancements could further enrich our understanding of the field.

In conclusion, this bibliometric study provides valuable insights into the growth and thematic progression of sign language research, outlining the roles of influential contributors, key thematic trends, and the impact of technology. These findings contribute a roadmap for future studies, especially in leveraging technology to enhance accessibility and foster inclusive, global collaboration. Continued bibliometric tracking will be essential to sustain innovation and inclusivity, promoting a more accessible and equitable world for the Deaf community.

References

Aria, M. & Cuccurullo, C. (2017). Bibliometrix: An R-tool for comprehensive science mapping analysis. *Journal of Informetrics, 11*(4), 959-975.

Chen, Y. & Deng, J. (2021). Bibliometric and visualized analysis of deaf education research. *Sustainability, 13*(18), 10136.

De Vos, C. & Pfau, R. (2015). Sign language typology: A bibliometric survey of the field. *Gesture, 15*(2), 195-226.

Donthu, N., Kumar, S., Mukherjee, D., Pandey, N., & Lim, W. M. (2021). How to conduct a bibliometric analysis: An overview and guidelines. *Journal of Business Research, 133*, 285-296.

Garfield, E. (1979). *Citation indexing: Its theory and application in science, technology, and humanities*. New York: Wiley.

Garfield, E. & Sher, I. H. (1993). Keywords plus—algorithmic derivative indexing. *Journal of the American Society for Information Science, 44*(5), 298-299.

González-Alcaide, G. & Valderrama-Zurián, J. C. (2015). Bibliometric mapping of research on second language acquisition. *Scientometrics, 103*(2), 409-438.

Khodadadian, E. & Marashi, H. (2019). Bibliometric analysis of research on bilingualism: An examination of trends and impact. *Bilingualism: Language and Cognition, 22*(2), 363-382.

Liu, C., Dai, Z., & Jhang, S.-E. (2024). Bibliometric analysis of research on gender equality in the maritime industry. *New Korean Journal of English Language and Literature, 66*(3), 171-199.

Small, H. (1999). Visualizing science by citation mapping. *Journal of the American Society for Information Science*, *50*(9), 799-813.

Zaidman-Zait, A. & Jamieson, J. R. (2007). Trends in sign language studies: A bibliometric analysis. *Journal of Deaf Studies and Deaf Education, 12*(1), 111-124.

Zhang, J., Yu, Q., Zheng, F., long, C., Lu, Z., & Duan, Z. (2016). Comparing keywords plus of WOS and author keywords: A case study of patient adherence research. *Journal of the Association for Information Science and Technology, 67*(4), 967-972.

Lee, Sunghwa
Researcher
Maritime Business Communication Center
National Korea Maritime and Ocean University
727 Taejong-ro, Yeongdo-Gu, Busan 49112, South Korea
Phone: (051) 410-4590
E-mail: eabbysunghwa@gmail.com

Jhang, Se-Eun
Professor
Department of English Language and Literature
National Korea Maritime and Ocean University
727 Taejong-ro, Yeongdo-Gu, Busan 49112, South Korea
Phone: (051) 410-4595
Email: jhang@kmou.ac.kr

Received on Nov 29, 2024
Revised version received on Dec 20, 2024
Accepted on Dec 27, 2024

Sign Languages and Linguistics Convergence Research
Vol. 1. No. 2 (2024) pp.405~430

Analogy-Driven Grammaticalization across Categories: The Case of 'Exactness' in Korean*

Rhee, Seongha
(Mahidol University · Hankuk University of Foreign Studies)

Rhee, Seongha. 2024. Analogy-Driven Grammatizalization across Categories: The Case of 'Exactness' in Korean. ***Sign Languages and Linguistics Convergence Research,*** *1*(2)*,* 405-430. In grammaticalization theory, a widely held view is that, unlike reanalysis, which creates new forms and rules in grammar, analogy does not create new grammatical structures but instead contributes only to the spread of an already innovated rule. However, based on an analysis of a dependent/defective noun mankhum 'exact amount', this paper argues that there are cases that support the thesis that grammaticalization may be actualized by analogy. This study addresses mankhum 'exact amount' from a grammaticalization perspective, based on historical and contemporary corpora and reveals a number of significant aspects of grammaticalization of mankhum. The lexeme emerged in Early Modern Korean as a variant, reinforced form of the dependent noun ma 'exact amount', and grammaticalized into postpositions and connectives of diverse functions, especially with variable scalar functions, such as downward, upward, and exact focus. In terms of semantic change, mankhum has undergone extensive subjectification, i.e., a lexeme objectively designating a particular amount has developed into one carrying perspectivized,

* Earlier versions of this paper was presented at the 23rd Binennial Meeting of the International Circle of Korean Linguistics (ICKL-2023), Palacký University Olomouc, Czechia, June 28-30, 2023, and at the Inaugural Conference of the Cognitive Linguistics Association of North America (CLANAC-1) (poster), Montreal, Quebec, Canada, June 27-29, 2024. This research was supported by the Ministry of Education of the Republic of Korea and the National Research Foundation of Korea (NRF-2023S1A5A2A01081160).

scalar meanings of exact, upper- or lower-limit focus as well as one denoting the subjective interpretation of an event along the chain of causality, also with scalar meanings. In terms of the cross-categorial change, the meaning-based extension across diverse syntactic environments is likely to have been triggered by analogy based on semantic and structural affinity. (214 words)

Key Words: Grammaticalization, Cross-Categoriality, Analogy, Subjectification, Exactness, Korean

1 Introduction

In grammaticalization theory (Heine et al. 1991; Hopper and Traugott 2003[1993]), a widely held view from its early history (Meillet 1912: 133) is that analogy is of lesser importance in grammaticalization. In other words, unlike reanalysis, which can create new grammatical structures, analogy does not create new grammatical structures but instead contributes only to the spread of an already innovated rule (Hopper and Traugott, 2003[1993]: 63-69). However, this paper, while acknowledging the critical role of reanalysis in grammaticalization, argues that there are cases that support the thesis that grammaticalization may be actualized by analogy (Fischer 2008).

Korean has a large number of dependent nouns (also referred to as 'defective' nouns or 'formal' nouns), an idiosyncratic feature observed as early as in Ramstedt ('post-participial nouns' 1997[1939]: 109-123) and Martin (1954: 15-16). They constitute a class of nouns that lack syntactic autonomy and semantic completeness, and thus require modifiers in order to occur in a sentence. Dependent nouns often lack concrete meanings and their participation in creating grammatical constructions is extensive. Their departure from the prototypical features of a lexical category of noun and acquisition of behavior typical of grammatical categories have attracted attention of researchers.

Mankhum (historically *maskom, kakhom, mankom,* etc.; see below) from Late Middle Korean (LMiK; mid-15th c. ~ 16th c.) is one such defective noun with the original meaning of a nominal 'exact amount', and its grammatical function has been extended across diverse grammatical categories over time. This study

addresses the defective noun *mankhum* ‘exact amount’, which has been underexplored in earnest from the grammaticalization perspective, and argues that its development exhibits the analogy-driven grammaticalization.

Given the background, the objectives of the present paper are fourfold: (i) to trace the historical development of *mankhum* from Late Middle Korean (LMidK; mid-15th ~ 16th c.); (ii) to analyze various functions that *mankhum* carries in Present-Day Korean (PDK; 21st c.); (iii) to discuss significant issues in grammaticalization theory with respect to parameters; and (iv) to argue that the developmental patterns of *mankhum* exemplifies analogy-driven grammaticalization.

The organization of the paper is as follows. Following the introduction, Section 2 briefly describes the typological profile of the Korean language and reviews the literature relevant to the present study. It also describes research methodology adopted here. Section 3 provides an account of the source forms and meanings of *mankhum* from its earliest occurrence prior to Modern Korean. Section 4 offers an exposition on diverse grammaticalized functions of *mankhum* in Modern Korean. Section 5 discusses the development, focusing on its select aspects from a grammaticalization perspective. Section 6 summarizes the findings and concludes the paper.

2. Preliminaries

2.1 Typological features of Korean

Among a number of typological characteristics of Korean, our description is limited to a few that have relevance to the present study. Korean is an agglutinating, head-final, SOV language, and in line with the SOV word order characteristics in morphology, it is suffixal and postpositional. Multiple suffixes and postpositions may occupy slots of a relatively fixed order. For this reason, the nominal morphologies developing from the noun is likely to become a postpositional particle hosting a noun phrase.

Finite verbs, occurring sentence-finally, are marked for tense, aspect, mood,

modality, and evidentiality, all of which constituting a constellation of agglutinated morphemes. These finite verbs are further marked by a sentence-type marker, such as declarative, imperative, interrogative, hortative, exclamative, promissive, propositive, etc., occurring at the ultimate slot of verb morphologies. Non-finite verbs, on the other hand, are often marked with converb-markers, whose main function is adverbializing a non-finite verb (Haspelmath 1995), or with other verbal morphologies, carrying the function of connecting phrases or clauses, with diverse connective meanings, such as sequentiality, causality, conditionality, etc. There are connectives that developed from a noun, albeit not large in number, and, as shall be seen below, *mankhum* is one of such nouns.

2.2 Literature review

The lexeme *mankhum* has received much attention of Korean linguists, from both prescritivists and descriptivists, largely because it displays quite unusual behavior in terms of categorial properties and semantic-functional features in interaction with other grammatical formants. It appears in J Lee's (2009) list of dependent nouns throughout Late Middle Korean (LMiK), Early Modern Korean (EMoK), and Modern Korean (MoK), the state of affairs also reflected in major dictionaries. But its categorial versatility has been noted by H Choe (1971), S Kim (1987), M Wang (1988), H Im and S Chang (1995), J Kim (1998), K Ha (1999), I Lee and W Chae (2000[1999]), Y Nam (2000), K Nam (2001), E Na (2000, 2011), K Oh (2004), J Kim (2014), K Nam and Y Ko (2014), among many others.

J Kim (2014), in particular, offers an intensive analysis of the functions of *mankhum*, such as dependent noun, case particle, adnominalizer, adverbializer, connective, particle, etc., with special focus on its occurrence in polylexemic constructions involving other cooccuring formants. Her analysis is notable in that it takes into account the form's elaborate interaction with the other forms in generating diverse meanings. Most studies are in agreement in asserting that the function of *mankhum* is marking equality in degree.

The above-referenced studies have made significant contributions to a better understanding of *mankhum* in terms of its contemporary functions and its commonality and differences in comparison with its functional relatives such as *chelem* 'like' and *kathi* 'like'. These contributions notwithstanding, analyses of *mankhum*'s developmental patterns, especially from a grammaticalization perspective, and the motivations behind the innovation of new functions have largely been underrepresented. This paper intends to fill the research gap by tracing the developmental patterns and reviewing the parameters with respect to its developmental processes.

2.3 Research methods

The present study is a conceptual study not involving experiments or quantitative analyses, solely based on the corpus data. The data used in the paper are taken from two main sources: The Sejong Historical Corpus (15 million words; 1446-1913), for historical data, and the Drama and Movie Corpus (24 million words), for contemporary data. The Sejong Historical Corpus was developed as part of the 21st Century Sejong Project by the Korean Ministry of Culture and Tourism and the National Institute of Korean Language (1998-2006). The Drama and Movie Corpus is a collection of 7,454 scenarios of dramas and movies dating from 1992 through 2015, compiled by Min Li. The data collection was made by search engine Uniconc, developed by Jinho Park, which enables concordance search with variable window sizes.[1)]

3. Source forms and meanings

The lexeme *mankhum* is compositionally complex, the emergence of which is based on its LMiK root ma denoting the 'same amount'. The lexical development can be illustrated as in (1) and its variants are shown in (2), based on the description of *Wulimalsaym*, an online-searchable open dictionary by the National Institute of Korean Language:

---

1) Special thanks go to the developers of these corpora and search tools, who generously granted their use for research.

(1) a. ma 'same amount'
b. ma + n 'same amount' +Epenthesis
c. ma + kom 'same amount' +Distributive
d. ma + s + kam 'same amount' +Adnominal +Distributive

(2) a. makom: 15th~17th centuries
b. maskam: 15th~17th centuries
c. makhom: 17th century
d. mankhom: 17th~19th centuries
e. mankhum: 18th~21st centuries

The involvement of the distributive particle *kom/kam* 'each' suggests that it makes reference to a certain feature with respect to more than one entity as part of its base semantics. Evidently, this source semantics has contributed to the development of the comparative marker. The following exerpt (3) is one of the earliest attestations of *ma* 'exact amount' in the historical data, in which the wife of Buddha laments the pitiable condition of herself and her son as a result of desertion by his husband (note that ma is glossed as 'amount' for simplicity):[2)]

(3) *ma* 'exact amount' (size, degree, quality, etc.)
(Since my husband (Buddha) has completely forgotten his family)
pilok salAm-Ay mwul-ey sani-ko-to
even.though people-Gen group-Loc live.move-and-Add
cyungsAyng-ma-to mot-ho-ngi-ta
beast-amount-even cannot-be-A:Hon-Dec
'Even though (my son and I) live and move about among people, (our life) is not even as good as that of animals.'
(1447 *Sekposangcel* 6:5)

2) The romanization of the Korean data follows the Extended Yale System (S Rhee, 1996) and in accordance with the convention of Korean historical linguistics, Chinese characters in the source text are rendered in upper-case with the modern pronunciation.

In the historical data of the same period, the variant form of *ma*, reinforced with the epenthetic nasal *-n, i.e., man,* is also attested, as shown in (4):

(4) *man* 'exact amount' (size, degree, quality, etc.)

KAKKAK	YU-lAl	CONG-ho-m-i	thelek
each	kind-Acc	follow-Nomz-Nom	hair
kut-man-to	ani	kulu-key	hA-nA-ni
tip-amount-Add	not	be.wrong-Advz	do-Pres-Conn

'They follow the principles in each type not failing even as small as the tip of hair, in observing them, so...' (1447, *Welisekpo* 19: 121)

Incidentally, the lexeme *man* 'exact amount' developed into a marker of diverse functions including that of marking an exclusive focus (see 5.5). In the same historical period, another variant of *ma,* reinforced with the distributive marker *kom,* i.e., *makom,* is attested, as exemplified in (5), an excerpt taken from a medical guidance book:

(5) *makom* 'exact amount' (size, degree, quality, etc.)

cyemcyem	taycho-psi-makom	mAngkAl-a	mek-ula
repeatedly	date.nut-pit-amount	make-Conv	eat-Imp

'Make (the pills) the size of a date-nut pit and take them repeatedly.' (1489, *Kwukupkanipang* 2:19b)

The following example is that of still another variant *maskam,* one involving the adnominalizer (*-s*) and the distributive (*kam*), taken from a dialogue between the travelers and the house-owner, who provides them with a room and food for hospitality. The excerpt is what the house-owner says in response to the compliments from the travelers for whom he served dinner:

(6) *maskam* 'exact amount' (size, degree, quality, etc.)

hyey-etun	i-maskam	pwi-n	pap-i
contemplate-if	this-amount	empty-Adn	meal-Nom
musukes-i	kinha-l-ko		

what.thing-Nom be.important-Fut-Q
'To think about it, what's a big deal with this much of a meager meal (without good side-dishes)?'

(c. 1510 *Penyeknokeltay* I: 41b)

In the foregoing exposition, we have seen that the precursor forms of *mankhum*, i.e., *ma, man, makom, maskom* and *maskam,* all denoting 'exactness' with respect to amount, size, degree, quality, etc., depending on the context, which provides the clues as to the aspect being compared and equated. It is possible that the reinforced forms may have had a stronger sense of exactness of the quality being compared, but no discernible differences between them can be identified. The latest form *mankhum* first appeared in the 18th century and survives to this day. On ther hand, all other forms, except for man which developed in a seprate route (cf. 'divergence', Hopper 1991), have fallen into disuse over the course of history.

4. Development in Modern Korean

The modern form *mankhum* has inheritied the core semantics from its precursor forms, i.e., the 'exact amount'. The semantics has undergone much extension, with variable degrees of semantic bleaching, and the semantic extension, as is often the case with many lexemes, has led to the emergence of grammatical forms, i.e., grammaticalization. Consequently, in contemporary Korean, mankhum is among the most versatile forms in terms of meaning and function, as shall be illustrated in the following.

4.1 (Dependent) noun

From its first occurrence in the 18th century, i.e., 1765 *Pakthongsa sinsekenhay* in the historical corpus, *mankhum* has maintained its nominal status until PDK. Since its semantic content is not substantive enough and its occurrence required a qualifier in the form of an adnominalized phrase, the best

characterization in this use is that of a dependent noun. The following is an example of the nominal usage of *mankhum,* found in the contemporary corpus:

(7) *mankhum* (dependent) noun, 'exact amount'

ce-nun	yenpong-un	cak-telato	ilha-n
I:Hum-Top	annual.salary-Top	be.small-Conc	work-Adn
mankhum	taywupat-ko.siph-supnita		
amount	be.treated-Desd-Fml.Dec		

'As for me, my annual salary may be low, but I want to be treated for the amount of my work (= amount commensurate to my work).'

(2005, Drama *Pwulkkoch* Episode #11)

Considering that the dependent noun usage with the same meaning of the 'exact amount' has remained from LMiK, we can surmise that the semantic 'persistence' of a lexeme can be extensive. In fact, all later developments, to be discussed below, are outgrowth of this core semantics, though to a varying degree.

4.2 Similative postposition of upward-focus

The nominal lexeme *mankhum* develops into a postposition signifying comparability (similative; 'like') of a feature of an entity to that of another, which serves as the standard of comparison. Comparability or similitude is a fundamentally scalar concept, and implies gradience from one polar end (i.e., maximally similar) to the other end (i.e., minimally similar) on a continuum. Furthermore, the mental operation of determining similitude may involve directionality of focus, e.g., an upward focus ('up to, as much as'), a downward focus ('down to, as little as'), and exclusive focus ('exactly like'). For instance, the following exerpt exemplifies the postposition *mankhum* as a similative marker of upward focus, wherewith a person's noble character is compared with the excellence of tea, which the speaker poetically implies is the ultimate form of virtue:

(8) *mankhum*, similative postposition 'like, up to, as much as'

phwungcin.seysang-ey cha-mankhum alumtaw-un
mundane.world-Loc tea-Sim.Foc be.beautiful-Adn
phwumkyek-ul kacchwu-n salam-ul manna-ki-nun
dignity-Acc have-Adn person-Acc meet-Nomz-Top
chamulo him.i.tul-ci-yo
truly be.hard-End-Pol
'It is truly difficult to find someone who has the noble character like tea (= as good as tea).'

(2008, Drama *Eyteynuy tongccok* Episode #8)

Grammaticalization of a noun into postposition is among the most common scenarios in Korean, for its idiosyncrasy of free compounding, a nominal analog of verb serialization (cf. S Kim 1982; Y Han 2003; H Lee 2016; S Rhee 2023).

4.3 Postposition of exclusive focus

As indicated above, the directionality of mental focus may be of exclusive focus ('only'), highlighting exactness of focusing. This usage is exemplified in the following excerpt, in which the speaker uses the postposition mankhum to signal that 'you' is the only concern of his:

(9) *mankhum,* exclusive focus postposition 'only'

ne-mankhum-un na-l silmangsikhi-ci.anh-ki-lul
you-Exc.Foc-Top I-Acc disappoint-Neg-Nomz-Acc
pala-n-ta
hope-Pres-Dec
'For no one else but you, I hope you don't disappoint me.' (= I don't care about others, but as long as you are concerned...) (2002, Movie *YMCA yakwutan*)

One thing to note is that even the exclusive focus may sometimes lend a downward focus interpretation in contexts like (9) (see 4.4 below). Thus, the

example above may be interpreted as ‘at least you’ (i.e., since everyone else has disappointed me) instead of ‘just you’ (i.e., since I don’t care about others as much as I do about you), which strongly suggests that the scalarity interpretation strongly depends on the context.

4.4 Postposition of downward focus

Still another postpositional function of *mankhum* is that of marking downward focus, i.e., indicating the lower-limit, denoting ‘just (at least)’. By using *mankhum* in this function, the speaker implies that the designated entity is the final member of the continuum, and that he or she disregards the members mapped above it along the continuum. This form is in common use in scenes of imploration by a desperate prayer or of negotiation by the disadvantaged party. This is well illustrated in the following excerpt, in which the speaker implores that the addressee should save the life of Eun-young:

(10) *mankhum,* lower-limit focus postposition ‘just (at least)’

cipal	wuli	unyengi	mokswum-mankhum
by.all.means	our	[name]	life-Dwn.Foc
sally-e.cwu-so			
save-Ben-Req			

‘By all means, I plea to you to save just the life of my (beloved) Eun-young.’ (= The only thing I want you to save is her life...; if only she can live, other things don’t matter.)

(2006, Drama Pomuy walchu Episode #3)

As indicated above, downward focus (strongly scalar) and exclusive focus (weakly scalar) may be ambiguous in interpreting natural language data. In the case of (10) above, however, the interpretation strongly leans towards the downward focus interpretation by virtue of occuring in the context where the implorer highlights the scalar lower-limit, disregarding everything above it in the continuum.

4.5 Similative connective of upward-focus

In contrast with the functions of mankhum as a nominal morphology described above, mankhum has also developed into a verbal morphology of various functions, still retaining its core lexical meaning of similitude or comparability. As was the case with the nominal morphology, the verbal morphology involves scalarity. The following excerpt exemplifies the usage of mankhum for the function of similative connective with upward-focus:

(11) *mankhum,* similative connective of upward-focus 'up to the point, as much as'

na-hanthey-nun	seysang-hakwu-twu		
I-Dat-Top	world-Com-even		
pakkwu-l.swu.eps-ul.mankhum		coh-un	appa-ø-ntey
exchange-cannot-Sim.Conn		be.good-Adn	father-be-Conn
talun	salam-hanthey	kuleh-ci-ka	anh-napw-a
other	person-Dat	be.so-Nomz-Nom	be.not-Infr-End

'He is my father who is so good that I cannot even exchange for the whole world, but perhaps it is not so to other people.'

(2000, Drama Kkokci Episode #23)

The above example shows that *mankhum* forms a bimorphemic connective *-ul.mankhum,* along with the prospective adnominalizer *-ul* (S Rhee 2012b; cf. a secondary future marker, Lyons 1977: 689; a relative future marker, Dahl 1985). The prospective marker indicates the conceptualizer's fictive motion along the continuum, e.g., in (11), the speaker moves along the continuum of entities that she thinks she may exchange for her father (and finds that the world, the apparently highest one on the continuum still fails to qualify for exchange with her father).

4.6 Similative connective of exactness focus

Another connective function of *mankhum* is that of marking exactness focus ('just as much as'). For the focus is on exactness of the properties being

compared (i.e., A's quality X is exactly B's quality X), scalarity is not (at least strongly) present in the interpretation. This is well exemplified in the following, a title of a documentary program:

(12) *mankhum,* similative connective 'just as much as'

alumtaw-un.mankhum	wihemha-n	ku	ilum
be.beautiful-Sim.Conn	be.dangerous-Adn	that	name
himallaya			
[name]			

'The Himalayas, the name just as much dangerous as it is beautiful.' (A title of a documentary program by KBS)

As is evident in (12), the Himalaya's property of being dangerous is not mapped onto the continuum of different degrees of dangerousness, but is directly mapped onto the degree of beauty of the Himalayas. In other words, the (extreme) degree of dangerousness is implicit, only carried over from the (extreme) degree of beauty of the mountains against which dangerousness is compared.

4.7 Causal connective of exactness focus

Another line of development of *mankhum* is its development into causal connectives. The functions of causality marking are also scalar, highlighting exactness ('just because') or the lower-limit with downward orientation ('at least because'). The exactness focus is illustrated in the following excerpt:

(13) mankhum, causal connective 'just because'

manh-un	nwun-i	ssah-nteytaka	pingphan.kil-i
be.much-Adn	snow-Nom	pile.up-Addn	icy.road-Nom
mikkulew-un.mankhum		cosimha-yse	
be.slippery-Caus.Conn		be.careful-Seq	
itongha-sy-eyaha-kyess-supnita			
move-S.Hon-must-Fut-Fml.Dec			

'Just because snow has accumulated and in addition the icy road is slippery, you are advised to exercise (= must) caution while moving about.'

(2021, Yonhap News weathercast Jan.7.2021)

The above example pinpoints the exact causes or reasons of the necessity for exercising caution for the motorists or pedestrians, i.e., heaped snow and icy road. Just as it was the case with the similative connective for marking exact focus, briefly exemplified in (12) above, the causal connective for marking exact focus does not strongly imply scalarity present in the property being focused. In other words, the solicited caution is not directly from the continuum of different degrees of cautiousness, but is carried over from the continuum of inclement traffic conditions that require caution.

4.8 Causal connective of downward-focus

Still another function of causal connective of mankhum is that of marking downward focus ('at least because'), whereby the lower-limit is presented. This is exemplified in the following excerpt:

(14) *mankhum,* causal connective 'at least because'

hoysa.ipcang-eyse	twu.tal-tongan-uy	cekca-lul	
company.part-at	2.month-period-Gen	loss-Acc	
kamswuha-nun.mankhum		silphayha-yss-ul	ttay-nun
accept-Caus.Conn		fail-Pst-Adn	time-Top
pwunmyeng	ku-ey	sangungha-nun	chaykim-i
surely	that-to	correspond-Adn	responsibility-Nom
ttalu-n-ta-nun-ke-l			myengsimha-yla
follow-Pres-Comp-Adn-Nomz-Acc			remember-Imp

'At least because the company management is willing to make up the loss for two months, you must keep in mind that you will be held responsible when (your suggested plan) fails.'

(2004, Drama *O! Philsung pongswunyeng* Episode #5)

In the excerpt, the speaker uses the causal connective -nun.mankhum, a composite form involving the simultaneous adnominalizer -nun, to signal the bottom-line cause or reason for the addressee's accountability for a plan with potential failure.

5. Discussion

5.1 Grammaticalization

The preceding section offered a cursory exposition on diverse functions of the grammaticalized *mankhum* across various categories, e.g., from its lexical function of (dependent) nominal, to postpositions and connectives. Even though they were exemplified with authentic corpus data, the exposition and illustration gloss over an enormous amount of semantic subtlety and morpho-syntactic complexity. However, the development of the cross-categorial polyfunctionality of *mankhum* clearly indicates extensive semantic and functional extension, thus constituting an excellent example of 'poly-grammaticalization' (Craig 1991). In this section we will briefly look at the state of affairs with respect to the four grammaticalization parameters, proposed by Kuteva et al. (2019), desemanticization, extension, decategorialization, and erosion.

The first parameter is desemanticization, also commonly known as semantic bleaching, semantic generalization. Considering that the source meaning of *mankhum* is 'exact amount', it is evident that desemanticization in the development of *mankhum* is not extensive. The semantic feature of 'exactness' may have become somewhat loosened in its change into the similative ('similarity'). What is crucial in this context is that the notion of 'exactness' is inherently subjective and scalar, with room for variability.

In terms of semantic change, mankhum has undergone extensive subjectification, i.e., a lexeme merely designating a particular amount or degree developed into perspectivized meanings of upper- or lower-limit, as well as the subjective interpretation along the chain of causality. Acquisition of subjectified meanings is an instance of gaining meaning or semanticization (or 'semantic

enrichment'), a reversed direction of the notion of desemanticization, the core concept of which is loss in semantic content.

The second parameter is extension, also known as expansion of use context. Extension has been extensive from the hypothetical full-noun usage to the dependent noun usage and then to nominal particles and verbal connectives. The full-noun stage is hard to prove due to the shallow depth of documentation, but from the uniformitarian principle, a dependent noun can be safely hypothesized to have been developed from a full noun. Extension does not seem to be extensive because most connectives still occur in syntactic nominal position, as evidenced by the preceding adnominalizer, the syntagmatic position of which is before a nominal. In other words, morpho-syntactic contexts for the form largely stay the same. Some exceptions, i.e., true extensions, include the connectives *-ni.mankhum, -li.mankhum,* etc. (which we did not exemplify in the above), which occur with the the causal connective *-ni* and the future tense marker *-li* (S Rhee and Khammee 2024), which precede *mankhum*. For its nominal characteristics, *mankhum* would not have been able to occur in a position following these markers, had it not been grammaticalized into bimorphemic connectives along with those markers. In this sense, *mankhum* has undergone extension, but its extent is rather limited.

The third parameter is decategorialization, a process whereby a grammaticalizing form gradually loses its characteristic features associated with the major categories, such as nouns and verbs. Nominal category features include modifiability by an adjective, pluralizability, coordination, etc. Thus, it is expected that the source lexeme *mankhum*, by virtue of its membership in the nominal category, had such nominal category features at an early state (e.g., **taylyak mankhum* 'approximate(ly) exact amount'; **mankhum-tul* 'exact amounts'; **mankhum-kwa chwusan* 'exact amount and approximation'; etc.) and that some of such features had been lost in the course of its development. However, the referenced historical data do not provide such nominal features in the early stages. When a new lexeme *mankhum* was innovated through reinforcements on the earlier form (i.e., ma 'exact amount'), it inherited the dependent noun features (thus, already unable to occur with such morphosyntactic features characteristic of a full-fledged noun). Based on the fact

that the loss of nominal category feature is not observable in the historical data, we can hypothesize that if ma did indeed undergo decategorialization, the process must have occurred early in history, i.e., before LMiK. A more conclusive answer, however, should await further research.

The final parameter of grammaticalization to review is erosion, or the loss of phonological volume of the grammaticalizing form. An investigation into historical data makes it plain that *mankhum* does not exhibit phonological reduction. Instead, it shows the reverse, i.e., phonological strengthening (e.g. *ma* > *man, makom, maskam, makhom, mankhom, mankhum*, etc.). Phonological erosion is commonly observable in grammaticalization processes crosslinguistically, but its reverse process, phonological strengthening is not uncommon in language change scenarios, either in grammaticalization or in degrammaticalization (cf. S Rhee 2010, 2012a, for Korean, S Rhee and Khammee 2024 for Thai; Norde 2009, 2011, Giomi 2020 for Irish; among others). The phonological strengthening may have been due to the desire for enhanced expressivity in describing exactness or similarity.

A review of the grammaticalization of *mankhum* in view of the four grammaticalization parameters leads us to a conclusion that the grammaticalization of mankhum either does not or, if ever, very weakly, conform to the the commonly attested developmental patterns. This strongly points to the facts that grammaticalization patterns exhibit strong tendency of unidirectionality but, at the same time, that individual developmental scenarios may involve much variability.

5.2 Analogy in grammaticalization

An issue that becomes apparent in an investigation of development of *mankhum* is the role of analogy. As briefly alluded to in the introduction, analogy has rarely been given due attention in grammaticalization, largely because it was thought that analogy, unlike reanalysis, does not create new grammatical structures but instead contributes only to the spread of an already innovated rule (Hopper and Traugott, 2003[1993]: 63-69).

However, this paper, while acknowledging the critical role of reanalysis in

grammaticalization, argues that there are cases that support the thesis that grammaticalization may be actualized by analogy (cf. Fischer 2007, 2008, De Smet 2009, 2012, Delbecque and Verveckken 2014, among others). The development from a noun to a postposition is commonly observed. When two nominals occur juxtaposed, one of them can often lose 'salience' and become 'discursively secondary' (Harder and Boye 2011: 60), in much the same way as one of the two serialized verbs loses salience and become an auxiliary verb (cf. Lehmann 2015[1982]; DeLancey 1991). In the case of Korean, due to the SOV word order characteristics, affixes are predominantly suffixes, hence the grammaticalizing form is likely to be the second one in the N-N configuration. This process is responsible for the grammaticalization of postpositions, e.g., *kAz* 'edge' > *-kkaci* 'to, till' (C Ryu 1962; S Kim 1982, 1986, 2004; Y Han 2003; J Park 2015; H Lee 2016; S Rhee 2022), *hantey* 'one place' > *-hanthey* 'to' (S Kim 1982; J. Heo 2007; Y Han 2003), *mali* 'head' > *-meli* pejorative suffix (H Koo 2009), and many others.

In the case of *mankhum*, by analogy, based on semantic affinity (similitude) and structural affinity (hosted-host), postposition can easily trigger the emergence of a connective, an instance of extension from the nominal host to clausal host. For example, the analogy-driven extension as reported in S Rhee and H Koo (2015), in their analysis of the tepidity particle −na from the verbal connective in Middle Korean, displays much parallelism with the development of *mankhum*. The reported diachronic pattern of extension of the units hosted by −*na* (S Rhee and H Koo 2015: 35), an instance of analogy-driven inter-categorial grammaticalization, is as follows (for individual functions, see S Rhee and H Koo 2015):

(15) ~ 10th c. Verbal > Nominal
15th c. Adverbial
16th c. Adjectival
19th c. Finite-clausal
Late 19th c. ~ 21st c. Sentential, Auxiliary, Non-finite marker, Complementizer, Nominal, Adverbial

Evidently, analogy is a common cognitive operation in grammaticalization processes involving changes from nominal hosts to verbal hosts and vice versa, not only in Korean but also across languages (Genetti 1991, S Rhee and H Koo 2015, S Rhee 2022). The present analysis lends support to the analogy-driven inter-categorial grammaticalization thesis.[3)]

5.3 Forms of scalarity in grammaticalization

As briefly indicated above, the notion of the 'exact amount' inherently comparative, which makes it scalar. Exactness is subjective and variable. In other words, exactness is a matter of degree. For this reason, the exactness may be mentally approached in downward direction or upward direction. At the extreme case, the directionality may become irrelevant and only the exactness may be highlighted. For this reason, various grammatical meanings such as 'as much as', 'as little as', 'just like', 'just because', 'at least because', etc. have come into existence.

This type of scalar meaning is often observed with Korean delimiting particles. In an analysis of the focus particles *-ya, -nun,* etc., M Kim (2024) observes that the particle can evoke the two opposite scalar implicatures, i.e., 'the most likely one' and 'the least likely one', triggered by the context (e.g., *sa-l.swu-ya iss-ci* '(I) can surely live' vs. *cwuki-ki-ya ha-keyss-e?* 'will (he) kill? (of course he won't)'. Similar phenomena are observable with *-nun, -na,* etc. This is not restricted to Korean particles; focus particles tend to form a few groups: (i) 'additive'/'inclusive' focus (e.g., English *also, even, as much as*) and 'restrictive'/'exclusive' focus (e.g., English *just, only*) (König 1991: 32); (ii) scalar focus particles (e.g., English *even, as much as*) (König 1991: 38); and (iii) evaluative-stance focus particles (König 1991: 43) (as cited by M Kim 2024). This state of affairs suggests that *mankhum*, as a focus particle, functions

3) As an anonymous reviewer suggests, an in-depth investigation of of grammaticalization of 'equality' lexemes across languages can significantly contribute to a better understanding of the issue. For instance, English has even, as, etc. that denote 'equality' or 'exactness' from Old English (*Oxford English Dictionary*), and just with a similar meaning from the 14th century. Since these carry grammatical functions across diverse categories, they constitute an excellent study subject.

as a scalar focus particle. Given the situation, Korean focus particles such as *mankhum* may be fruitfully investigated with respect to what contexts trigger different scalar interpretations and how markers of such functions become grammaticalized.

5.4 Remaining issues

Historically, the lexeme *mankhum* can be traced back to LMiK lexeme ma (see (1), (2), and (3) above), which further changed to man. This defective noun has survived until MoK and has become one of the most productive focus particles in MoK. For sharing the origin, its function is similar to its later variant mankhum, particularly as a nominal morphology. In extant literature, the MoK connective of the same shape, *-man* (sometimes occurring as an elongated variant *-manun*), has not been linked to the particle -man, but the topic warrants further research.

It has been already observed that well before the emergence of mankhum, man was among the productive lexemes, carrying the delimiter function of comparative marker ('than, as, like, as compared to, as much as') and exclusive-focus marker ('only') (cf. S Kim 1982; J Park 1995; J Kim 1995; S Kim 2000; K Ha 2005). With divergence and different specialization, *-man* has become primarily an exclusive-focus marker ('only') and *-mankhum,* as a postposition, primarily a comparative similative marker ('as much as, like') (S Kim 1982; J Kim 1998: 182-200; Y Hong 1976: 215-219; M Wang 1988; K Oh 2003, among others). K Oh (2003: 103) notes that in their comparative similative marker function, *-man* and *-mankhum* have no fundamental differences, but that *-man* has more severe occurrence restrictions than *-mankhum* does.

This paper has restricted its attention to the scalar functions of mankhum and the involvement of analogy in its grammaticalization processes. It could not pursue a macroscopic investigation for space limitation. For a fuller understanding of grammaticalization of *-mankhum*, however, a more in-depth exploration into the dynamics between *-mankhum* and -man and their interaction in functional competition is called for. In addition, a quantitative analysis across time would constitute a desirable follow-up study. It is also to be noted that an

analysis of degree operators constraining *mankhum* and its kindred delimiters in comparison and contrast can be a further study.

6. Summary & conclusion

This paper investigated the development of *mankhum* from its lexical meaning of the 'exact amount' into various grammatical markers, such as postpositions and connectives. An investigation based on historical and contemporary corpora revealed a number of significant aspects of grammaticalization of *mankhum*. In terms of semantic change, *mankhum* has undergone extensive subjectification, i.e., a lexeme objectively designating a particular amount has developed into one carrying the perspectivized, scalar meanings of upper- or lower-limit as well as one denoting the subjective interpretation of an event along the chain of causality. A review of the grammaticalization patterns of *mankhum*, with reference to the four grammaticalization parameters (Kuteva et al. 2019), revealed that the patterns' compliance with them is rather limited. In terms of the cross-categorial change, the meaning-based extension across diverse syntactic environments is likely to have been triggered by structural analogy (cf. Genetti 1991, Hoffmann 2005, Fischer 2008, De Smet 2009, S Rhee & H Koo 2015, among others, for similar analyses).

Abbreviations:

A:Hon: addressee-honorific; Add: additive; Adn: adnominal; Advz: adverbializer; Ben: benefactive; Caus: causative; Com: comitative; Comp: complementizer; Conc: concessive; Conn: connective; Conv: converb; Dat: dative; Dec: declarative; Desd; disiderative; Dwn: downward; End: sentence-ender; Exc: exclusive; Fml: formal; Foc: focus; Fut: future; Gen: genitive; Hum: humilitive; Imp: imperative; Infr: inferential; Loc: locative; Neg: negation; Nom: nominative; Nomz: nominalizer; Pol: polite; Pres: present; Pst: past; Q: question/interrogative; Req: requestive; S.Hon: subject-honorific; Seq: sequential; Sim: similative; Top: topic

References

Choe, H-B. (1971). *Wulimalpon* [Korean grammar]. Seoul: Jungeum Publishing.

Choi, Y. (2022). Morality is cleanliness metaphor in Korean, English, and Korean Sign Language. *Language and Linguistics, 97,* 125-146.

Craig, C. (1991). Ways to go in Rama: A case study in polygrammaticalization. In Elizabeth Closs Traugott & Bernd Heine (Eds.), *Approaches to grammaticalization 2*, (pp.455-492). Amsterdam: John Benjamins.

Dahl, Ö. (1985). *Tense and aspect systems.* Oxford: Basil Blackwell.

De Smet, H. (2009). Analysing reanalysis. *Lingua, 119*, 1728-1755.

De Smet, H. (2012). The course of actualization. *Language, 88*(3), 601-633.

DeLancey, S. (1991). The origins of verb serialization in modern Tibetan. *Studies in Language, 15*(1), 1-23.

Delbecque, N. & Verveckken, K. (2014). Conceptually-driven analogy in the grammaticalization of Spanish binominal quantifiers. *Linguistics, 52*(3), 637-684.

Fischer, O. (2007). *Morphosyntactic change: Functional and formal.* Oxford: Oxford University Press.

Fischer, O. (2008). On analogy as the motivation for grammaticalization. *Studies in Language, 32*(2), 336-382.

Genetti, C. (1991). From postposition to subordination in Newari. In Elizabeth Closs Traugott & Bernd Heine (Eds.), *Approaches to grammaticalization 2,* (pp.227-255). Amsterdam: John Benjamins.

Giomi, R. (2020). Shifting structures, contexts and meanings: A Functional Discourse Grammar account of grammaticalization. Ph.D. Dissertation. Universidade de Lisboa.

Ha, K. (1999). *Hyentay Hankwuke Pikyokwumwun Yenkwu* [A study of comparative constructions in Modern Korean]. Seoul: Pakijeong.

Han, Y. (2003). *The types of language units' changes and particlization in Korean.* Seoul: Hankook Publisher.

Harder, P. & Boye, K. (2011). Grammaticalization and functional linguistics. In Heiko Narrog & Bernd Heine (Eds.), *The Oxford handbook of grammaticalization,* (pp.60-65). Oxford: Oxford University Press.

Haspelmath, M. (1995). The converb as a cross-linguistically valid category. In Martin Haspelmath & Ekkehard König (Eds.), *Converbs in cross-linguistic perspective. Structure and meaning of adverbial verb forms: Adverbial participles, gerunds,* (pp.1-55). Berlin: Mouton de Gruyter.

Heine, B., Ulrike C., & Friederike H. (1991). *Grammaticalization: A conceptual framework.* Chicago: The University of Chicago Press.

Hoffmann, S. (2005). *Grammaticalization and English complex prepositions: A corpus-based study*. London: Routledge.

Hong, Y. (1976). Pikyo kwumwuneyseuy kyekemiwa hwuchisa [Case particles and postpositions in comparative constructions]. *Hakswulwen nonmwuncip, 15,* 201-226.

Hopper, J. (1991). On some principles of grammaticalization. In Elizabeth Traugott & Bernd Heine (Eds.), *Approaches to grammaticalization*, (pp.17-35). Amsterdam: John Benjamins.

Hopper, J. & Traugott. E. (2003). *Grammaticalization.* Cambridge: Cambridge University Press.

Heo, J. (2007). Grammaticalization of Korean supplement postpositional words. *Hanmincokemwunhak, 22,* 59-79.

Im, H. & Chang, S. (1995). *Kwuke Mwunpeplon* [Korean grammatical theories] *1*. Seoul: Korea Open University Press.

Kim, J. (1998). *Cwungseykwukeuy Pikyokwumwunyenkwu* [A study of comparative constructions in Middle Korean]. Seoul: Thayhaksa.

Kim, J. (2014). A study on the semantico-functional characteristics of *mankeum*. *The Journal of Linguistics Science, 72,* 103-132.

Kim, J. (1995). Cwungseykwuke pocosaey tayhan yenkwu [A study of auxiliary particles in Middle Korean]. MA Thesis. Seoul National University.

Kim, M. (2024). Claiming common ground: The function of the scalar focus *ya* in negotiations. Paper presented at the UCLA-CMC Joint Conference, New Perspectives on Korean Language and Linguistics, UCLA, May 25, 2024.

Kim, S. (1982). *Kwuke Thossi Yenkwu* [A study of Korean particles]. Seoul: Suhkwang.

Kim, S. (1986). *Hankwuke Cosauy Thongsicek* Yenkwu [A diachronic study of Korean particles]. Seoul: Daejegak.

Kim, S. (1987). Kyencwumwel yenkwu [A study of comparative clauses]. *Han-Geul, 196,* 195-218.

Kim, S. (2004). *Kwuke Thossi Ewenkwa Yongpep* [Etymology and usage of Korean particles]. Seoul: Yeklak.

Kim, S. (2000). Hyentaykwuke pocosauy pyenchen [Historical change of Modern Korean auxiliary particles]. In Jongseon Hong (Ed.), *Hyentaykwukeuy Hyengsengkwa Pyenchen* [Formation and change of Modern Korean], (pp.121-148). Seoul: Pakijeong.

König, E. (1991). *The meaning of focus particles*: *A comparative perspective.* London: Routledge.

Koo, H. (2009). Body in the language: A case with Korean body-part term 'head'. *Language and Linguistics, 46*, 1-27.

Kuteva, T., Bernd, H., Bo, H., Haiping, L., Heiko, N., & Rhee, S. (2019). *World lexicon of grammaticalization.* Cambridge: Cambridge University Press.

Lee, H. (2016). A cognitive comparative analysis of stance marking in English and Korean. *Language and Linguistics, 71*, 189-214.

Lee, I. & Wan, C. (2000). *Kwuke Mwunpeplon Kanguy* [A Lecture on Korean Grammar]. Seoul: Hanshin Publishing.

Lee, J. (2009). *Hankwuke Uyconmyengsa Yenkwu* [A study of Dependent Nouns in Korean]. Seoul: Hankook Publisher.

Lehmann, C. (1982). *Thoughts on grammaticalization* (3rd edition.). Berlin: Language Science Press.

Lyons, J. (1977). *Semantics.* Cambridge: Cambridge University Press.

Martin, S. (1954). *Korean morphophonemics* [William Dwight Whitney Linguistic Series]. Baltimore: Linguistic Society of America.

Meillet, A. (1912). L'évolution des formes grammaticales. *Scientia* 12. (Reprinted in Meillet. 1948. *Linguistique Historique et Linguistique Générale*, (pp.130-148). Paris: Edouard Champion).

Na, E. (2000). *Study on compared marker in current Korean language*. MA Thesis. Hansung University.

Na, E. (2011). Sense-characterization of *-mankeum* and *-cheorum* and comparative and figurative expression. *Korean Semantics, 34*, 109-130.

Nam, K. (2001). *Hyentaykwuke Thongsalon* [Modern Korean syntax]. Seoul: Thayhaksa.

Nam, K. & Ko, Y. (2014). *Phyocwun Kwuke Mwunpeplon* [Korean grammar]. Seoul: Pakijeong.

Nam, Y. (2000). *A statistical study on 'Josa' in current Korean.* Seoul: Thayhaksa.

Norde, M. (2009). *Degrammaticalization.* Oxford: Oxford University Press.

Norde, M. (2011). Degrammaticalization. In Heiko Narrog & Bernd Heine (Eds.), *The Oxford handbook of grammaticalization,* (pp.475-487). Oxford: Oxford University Press.

Oh, K. (2003). *A study on the comparatives by postposition in Korean.* Ph.D. Dissertation. Sogang University.

Oh, K. (2004). On the difference between *mankeum* comparatives and *cheorum* comparatives. *Korean Semantics, 14,* 197-221.

Park, J. (1995). Hyentaykwuke *man, ppwun, ttalum*-kwa cwungseykwuke *man, spwun, stAlAm-uy* mwunpepcek ciwiey tayhaye [On grammatical status of *man, ppwun* and *ttalum* in Modern Korean and *man, spwun* and *stAlAm* in Middle Korean]. *Kwukehaknoncip 2*, 1-8.

Park, J. (2015). A historical study of delimiters. *Journal of Korean Linguistics, 73*, 375-435.

Ramstedt, J. (1939). *A Korean grammar* [Suomalais-Ugrilaisen Seuran Toimituksia 82]. Helsinki: Suomalais-Ugrilainen Seura.

Rhee, S. (1996). *Semantics of verbs and grammaticalization.* Ph.D. Dissertation. The University of Texas at Austin, Seoul: Hankook Publisher.

Rhee, S. (2010). Many uses of one place: Grammaticalization of *han-tey* 'one place', *Japanese/Korean Linguistics, 17,* 581-593.

Rhee, S. (2012a). Context-induced reinterpretation and (inter)subjectification: The case of grammaticalization of sentence-final particles. *Language Sciences, 34*(3), 284-300.

Rhee, S. (2012b). Dimensions and force dynamics in perception and grammar: A grammaticalization perspective. *Studies in Modern Grammar, 70*, 181-206.

Rhee, S. (2022). Where to go at the end: Polylexicalization and polygrammaticalization of *kAz* 'edge' in Korean. *Russian Journal of*

Linguistics, 26(3), 571-595.

Rhee, S. (2023). Intertwined grammaticalization, degrammaticalization, and pragmaticalization: The case of *ppwun* 'share' in Korean. *Lingua, 291,* 103559.

Rhee, S. & Kultida, K. (2024). Grammaticalization of future-time reference markers in Korean and Thai. *GEMA: Online Journal of Language Studies 24*(3), 1-19.

Rhee, S. & Koo, H. (2015). Analogy-driven inter-categorial grammaticalization and (inter)subjectification of *-na* in Korean. *Lingua, 166*, 22-42.

Ryu, C. (1962). From content word to function word. *Yonsei University Inmwunkwahak, 7*, 1-23.

Wang, M. (1988). *Kuntaykwukeuy Uyconmyengsa Yenkwu* [A study of dependent nouns in Early Modern Korean]. Seoul: Hansaem.

Rhee, Seongha
Global Talent Professor
Faculty of Liberal Arts, Mahidol University
Phutthamonthon Sai 4, Salaya
Nakhon Pathom 73170 Thailand
Professor Emeritus
Department of English Linguistics & Language Technology
College of English, Hankuk University of Foreign Studies
107 Imun-ro, Dongdaemun-gu
Seoul 02450 Korea
Phone: +66-92-271-4233; +82-10-9001-0042
Email: srhee@hufs..ac.kr

Received on Nov 30, 2024
Revised version received on Dec 11, 2024
Accepted on Dec 27, 2024

Sign Languages and Linguistics Convergence Research
Vol. 1. No. 2 (2024) pp.431~476

When Formalism Meets Functionalism: An Overview of Korean Multiple Nominative Constructions

Yoon, James Hye Suk · Park, Chongwon
(University of Illinois at Urbana-Champaign · University of Minnesota Duluth)

Yoon, James Hye Suk & Park, Chongwon. 2024. When Foramlism Meets Functionalism: An Overview of Korean Multiple Nominative Constructions. ***Sign Languages and Linguistics Convergence Research,*** *1*(2), 431-476. This article seeks to critically assess the current body of research on Korean Multiple Nominative Constructions (MNCs), with a particular focus on studies grounded in cognitive-functional theories. The majority of research on Korean MNCs has been conducted within the formal-generative framework, which has led to significant advancements in our understanding. However, they suffer from the failure to recognize the context dependency of judgments of well-formedness regarding MNCs. Failure to pay due attention to contextual factors has led to misleading generalizations, with deleterious consequences for theoretical proposals built upon them. The critical survey of functionally oriented research on MNCs reveals complementary insights that can lead to a deeper understanding and informed analyses of MNCs. In particular, we focus on the illusive interpretive factors that constrain the outer nominal (or Major Subject) and the inner clause (or Sentential Predicate) in MNCs, arguing that MNCs can occur in a variety of discourse contexts, which implies that the reduction of MNCs to topic-comment structures is misguided. MNCs are structures that have subject-predicate partitions at more than one level where typical subject properties are distributed between the outer and inner subjects, as argued by earlier researchers. The illusive property of 'relevance' that Sentential Predicates must satisfy in a well-formed MNC is shown to be intricately tied to the interpretation given to the Major Subject.

Key Words: Adjunct Type MNC, Grammatical Subject, Major Subject, Possession Raising, Possession Type MNC, Reference Point, Sentential Predicate

1. Introduction[1)]

This article seeks to critically assess the current body of research on Korean Multiple Nominative Constructions (MNCs), with a particular focus on studies grounded in cognitive-functional theories. Although the majority of research on Korean MNCs has been conducted within the formal-generative framework, leading to significant advancements in our understanding of these constructions, research in this tradition has been plagued with limitations. Challenges such as misleading generalizations and conflicting assessments of grammaticality on the bases of decontextualized and isolated examples are common, though the well-formedness of MNCs is intricately tied to the discourse context in which they are used, as we shall see. Formal/generative analyses focus on finding generalizations of theoretical interest to current syntactic theories, such as the mechanisms that give rise to multiple case-marking and the thematic licensing of outer nominatives. However, unless the factual generalizations are grounded in a comprehensive understanding of all the factors that impact the acceptability of MNCs, analyses built on partial and misleading generalizations cannot serve to advance our knowledge. In contrast, functionally oriented approaches seek to incorporate contextual factors into their analyses and are concerned less about the purely syntactic aspects of MNCs, such as the question of how multiple case-marking arises.

It is noteworthy that scholars from both formal-generative and functional perspectives occasionally converge on similar conceptualizations of MNCs, albeit

1) The abbreviations used in this article are as follows. ACC: Accusative, ADN: Adnominalizer, A-MNC: Adjunct type MNC, CG: Cognitive Grammar, COMP: Complementizer, CONJ: Conjunction, CONN: Connective, COP: Copula, DCL: Declarative, DR: Discourse Rheme, DS: Discourse Structure, DSC: Double Subject Construction, DT: Discourse Theme, EXCL: Exclamation, GEN: Genitive, GS: Grammatical Subject, HON: Honorific, INF: Infinitive, KES: The bound morpheme kes, KAFC: Korean Argument Focus Construction, KPCC: Korean Predicate Clause Construction, MAC: Multiple Accusative Construction, MNC: Multiple Nominative Construction, MS: Major Subject, NEG: Negation, NOC: Nominative Object Construction, NOM: Nominative, PL: Plural, P-MNC: Possession type MNC, PR: Possessor Raising, PRS: Present, PST: Past, Q: Question, RCG: Radical Construction Grammar, QS: Quotation Statement, RP: Reference Point, SP: Sentential Predicate, TOP: Topic.

using different terminologies and frameworks. However, differences in terminology and assumptions often make it challenging to separate substantial insights from mere terminological differences. By examining research conducted within functionalist frameworks, this article aims to identify potential areas of consensus between formal-generative and functional approaches and discuss their implications for future research directions.

To achieve these objectives, the article evaluates existing cognitive-functional analyses in relation to key questions that have been extensively explored in formal-generative studies of MNCs: [1] the typology of MNCs-how many types are there, and what criteria define these types? [2] the grammatical role of multiple nominative-marked NPs-do they function as subjects or fulfill other roles, and if they are subjects, why is there variation among them? [3] the interpretive properties of MNCs-what is the relationship between outer nominative (aka Major Subject (MS)) and the inner nominative (aka Grammatical Subject (GS)), and what are the defining characteristics of Sentential Predicates (SP) and Major Subjects (MS) in MNCs?

By identifying answers to the questions formulated above, we hope to showcase the value of a formalist-functionalist dialogue. Korean MNCs are ideally suited to demonstrate the advantage of such a dialogue because these are some of the many phenomena where functional and discoursal factors can deeply inform formal grammatical patterns. While we are somewhat agnostic as to the value of positing a parameter of 'discourse/topic prominence' argued to characterize the grammar of Korean globally, we believe Korean MNCs are susceptible to the rich interplay of formal-structural and functional-discoursal factors. This is why MNCs constitute an ideal laboratory to test the value of formal-functional symbiosis.

While the diversity of perspectives should enrich our understanding of a given phenomenon, the sociology of the field is such that there is little communication between the two camps. The lack of communication cannot be blamed solely on differences in theoretical assumptions and representational choices since whatever communication exists between the camps is often uni-directional, typically in the form of functionalist critiques of formal analyses with little engagement of formalist critiques of functionalist work. As a result,

the communication is far from collegial and often adversarial. Granted that there are plenty of venues to air one's ideas in each of these camps without the need to engage in cross-theoretical dialogue, we nevertheless think that the lack of fertile communication has not served to advance the field. We believe the situation does not have to be this way. When methodological and theoretical blinders are removed or put in proper perspective, an insightful understanding of language can be gained.

The organization of this article is as follows. In Section 2, we provide a brief survey of formal-generative approaches to Korean MNCs by addressing the strengths and weaknesses of the existing proposals. With this background, we critically appraise cognitive-functional research on MNCs in Sections 3 and 4. While Section 3 exclusively discusses Cognitive Grammar (CG) approaches to MNCs in Korean and Japanese, Section 4 is devoted to other (broadly construed) functional approaches. Section 5 concludes this article, by summarizing our answers to the questions raised in Section 1 and discussing the implications and future direction of our research.

2. Generative-formal answers to the questions about MNCs

Formal-generative approaches assume that syntactic structure is a projection of lexical properties. From this perspective, the *prima facie* challenge raised by MNCs has to do with the thematic licensing of outer nominatives that are clearly not arguments of the lexical predicate. Since there can be any number of outer nominatives in MNCs, a minor modulation of the principles of structure projection based on argument structure would not suffice to account for the licensing of such NPs. Therefore, in many formal approaches, the thematic licensing problem is handled by assuming that there is an underlying source of MNCs where the outer nominatives are licensed thematically. The source is internal possession constructions, which are readily available as synonymous paraphrases of many MNCs, as illustrated in (1).

(1) a. Cheli-ka apeci-ka sengkyek-i acwu koyakha-ta.
C-NOM father-NOM personality-NOM very nasty-DCL
'Cheli's father has a bad temper.'
b. Cheli-uy apeci-uy sengkyek-i acwu koyakha-ta.
C-GEN father-GEN personality-NOM very nasty-DCL
'Cheli's father has a bad temper.'
'Cheli's father's personality is nasty.'

From the underlying structure in (1b), an MNC like (1a) is assumed to be derived by a syntactic rule of Possessor Raising (PR) (S.-A. Chun, 1985: H.-S. Choe, 1986). Depending on the analysis, the raised possessor then becomes the surface subject of the sentence. When PR has applied more than once, scholars differ on whether there is more than one subject in MNCs in surface structure.

While PR analyses offer a principled solution to the thematic licensing problem of outer nominatives, it is by now well known that it faces innumerable challenges (Yoon, 2015 for a summary). One obvious challenge comes from the existence of MNCs where the outer nominative cannot be paraphrased as possessor of the inner nominative, as shown in (2).

(2) a. I kosoktolo-ka thulek-i manhi tani-n-ta.
this highway-NOM truck-NOM a.lot.of drive-PRS-DCL
'Lots of trucks drive on this highway.'
b. *I kosoktolo-uy thulek-i manhi tani-n-ta
this highway-GEN truck-NOM a.lot.of drive-PRS-DCL
Intended: 'Lots of trucks drive on this highway.'

This is not taken to be a challenge, however, in formal approaches that take the role borne by the outer nominative in (2a) to be an adjunct role. PR is not implicated in the derivation of the MNC in (2a). This then raises the question of why the adjunct NP is marked in a manner typical of argumental subject NPs, that is, with the particle *ka/i*. Answers given vary, but one that is common assumes that the particle is not always a marker of nominative case but can also function as a focus or topic marker (Yoon, 1986: Schütze, 2001: Kim,

Sells, & Yang (KSY, hereafter), 2007).[2] If this analysis is correct, it is predicted that there are differences between the outer nominative in MNCs like (1a), which are called Possessor type MNCs (P-MNCs), and those like (2a), called Adjunct (or Focus) type MNCs (A-MNCs). In particular, the *ka*-marked outer nominative in P-MNCs is a (surface) subject and the particle *ka/i* realizes nominative case, while that in A-MNCs is an adjunct, with *ka/i* a marker of focus/topic. In addition, subjecthood remains on the inner nominative in the latter.

Proponents of this position point to facts such as (3) below to support their supposition that there are two distinct sub-types of MNCs. Assuming subject honorification to be a valid subject diagnostic in Korean, the fact that it appears to be controlled by the outer nominative in the P-MNC (3a) but by the inner nominative in the A-MNC (3b) offers prima facie support for the bifurcation.

(3) a. Kim-sensayng-nim-i sengkyek-i acwu coh-usi-ta.
K-teacher-HON-NOM personality-NOM very good-HON-DCL
'Professor Kim has a good personality.'
b. I hakkyo-ka kyoswu-nim-tul-i acwu hwullyungha-si-ta.
this school-NOM professor-HON-PL-NOM very outstanding-HON-DCL
'The faculty of this college are outstanding.'

While many scholars working in the formal-generative tradition have adopted the analyses and the typology of MNCs sketched above, others have taken a different approach. Though details differ, these researchers assume that the outer nominatives are licensed uniformly as an (argumental) subject of a clausal or sentential predicate consisting of the inner nominative and the lexical predicate (inner clause) and, therefore, that the outer nominative is a subject in both

2) This predicts that the outer nominative should have a focus or topic reading. Focus-type MNC is another term used for A-MNCs, the choice of the term based on the supposition that the initial nominal is always construed with narrow focus (KSY, 2007). This is not a viable position to maintain, as will become clear. An alternative would be to assume that *ka/i* is a case-marker that is assigned to a bare NP adverb. Case assignment to bare NP adverbials is possible in Korean, as is well-known (Kim & Maling, 1993).

P-MNCs and A-MNCs. In terms of how the thematic role of the outer nominative is licensed, proposals vary. When the nominal is linked interpretively with the possessor role of the inner nominative, various mechanisms have been posited to allow the possessor role to be assigned in a delayed manner (Yoon, 2007: Vermeulen, 2005). Crucially, however, PR is not countenanced, which shields these analyses from technical and empirical problems facing PR analyses. The outer nominative is deemed to be a subject in both types of MNCs. This then raises the question of why subject honorification seems to be controlled by different NPs in the two types, as we have seen. An alternative explanation offered invokes metonymy (Hong, 1991). Hong maintains that subject honorification is always controlled by the inner nominative (or the Grammatical Subject, GS). When it appears to be controlled by the outer nominative (or the Major Subject, MS), it is through metonymy (Hong, 1991). Specifically, *sengkyek 'personality'* is a metonym for the person who possesses it. This line of explanation can explain the contrast between (3a) and (4) below, since unlike one's personality, a contingently possessed umbrella or watch is not likely to be construed as a metonym for its possessor.

(4) *? Kim-kyoswu-nim-i wusan-kwa sikyey-ka pissa-n
K-professor-HON-NOM umbrella-CONJ watch-NOM expensive-ADN
swuip-phwum-i-si-ta.
import-goods-COP-HON-DCL
'Professor Kim's umbrella and watch are expensive imports.'

Going beyond subject honorification and examining the entire list of proposed subject diagnostics reveals that they are controlled by different NPs in MNCs: some are controlled by the outer nominative/MS, while others are controlled by the inner nominative/GS. Those who adopt metonymy to account for the difference between (3a) and (3b) view subject honorification as exclusively controlled by the inner nominative. A common crosslinguistic subject diagnostic that is exclusively controlled by the outer nominative in MNCs is Subject-to-Object Raising (SOR).[3)]

(5) a. Na-nun Kim-kyoswunim-ul/i sengkyek-i/*ul
I-TOP K-professor-ACC/NOM personality-NOM/*ACC
acwu coh-usi-ta-ko sayngkak-ha-n-ta.
very good-HON-DCL-COMP think-do-PRS-DCL
'I think Professor Kim has a very good personality.'

b. Na-nun I kosoktolo-lul/ka thulek-i/*ul
I-TOP this highway-ACC/NOM truck-NOM/*ACC
manhi tani-n-ta-ko sayngkak-ha-n-ta.
a.lot.of drive-PRS-DCL-COMP think-do-PRS-DCL
'I think lots of trucks drive on this highway.'

As to why subject diagnostic properties are split in this way, Yoon (2007, 2009) relies on crosslinguistic research on subject diagnostics, which has identified two distinct notions that are regularly encoded in subjects, one being the subject as the most prominent argument of a predicate and the other being the subject as structurally and positionally the most prominent nominal, or the pivot. Research on ergative languages (Dixon, 1994: Falk, 2006) has clearly shown that the two dimensions of subjecthood need not converge on a single nominal. While Korean is not an ergative language, if there are multiple subjects in MNCs, the subjects are not all uniform when viewed in terms of the two dimensions. Subjects-qua-prominent argument role is the prerogative of the inner nominative/GS; the outer nominative, if it is a subject, can only be one in virtue of being the most prominent NP syntactically (Pivot), as it is not an argument of the lexical predicate but still structurally and functionally more prominent than

3) The full list of subject diagnostics and how they are split between MS and GS, à la Yoon (2007, 2009), are as follows:
- Inner nominative/GS: Subject honorification and equi controller in obligatory control.
- Outer nominative/MS: Subject-to-Object Raising and nominative case marking.
Chae & Kim (2008) assert that either the MS or the GS can control subject diagnostics, contra Yoon (2007). While this may appear to be the case for the highly context-dependent and slippery subject honorification diagnostic, other diagnostics clearly cannot be controlled by either nominal when both are present. SOR in (5a, b) is one such example. So is complement PRO control, which is exclusively the prerogative of the GS.

the inner nominative.[4] Yoon argues that the distribution of subject properties among different nom-marked NPs in MNCs can be predicted from this perspective, given the different statuses of the inner and outer nominatives. In particular, SOR is a diagnostic that targets subjects in their role as Pivot, and it is not surprising that it should target the outer nominative in MNCs.

A corollary of the multiple subjects approach to MNCs is that the particle *ka/i* that surfaces on both the outer and inner subjects can be viewed as the marker of nominative case, and not discourse functions such as focus and/or topic.[5] While this is a welcome result, it does not address the question of what can constitute a well-formed inner clause/Sentential Predicate (SP) in felicitous MNCs, regarding which there has been a long-standing observation that in MNCs, the SP must be construable as denoting a relevant property of the referent of the MS/outer nominative, or that the SP be construable as being "about" the MS/outer nominative. As to how exactly this requirement is fleshed out, proposals run the gamut from the claim that the lexical predicate within the SP must be stative/individual-level predicates (Suh, 2003) to positions that hold that almost any SP that can be construed in a given context as describing a relevant property of the MS is allowed (Chae & Kim, 2008: Hong, 2014).[6] In between are proposals that claim that the property denoted by the SP should be construable as one that "characterizes" the referent of the MS in a particular

4) This conclusion remains valid even in approaches where the subject/external argument is assumed to be 'severed' (Kratzer, 1996) from the internal arguments in a decompositional-exoskeletal deconstruction of argument structure. While there may be two distinct semantic heads involved in licensing the two classes of argument roles, the heads merge into one in the derivation. In addition, other measures of what constitutes a complete, or closed, argument structure complex (such as the calculation of the domain of binding or locality domains such as phases) count the external argument and internal argument(s) as part of a single domain.

5) It is well-known that NPs marked with *-ka/i* can assume a variety of information-structural roles (Lee & Shimojo, 2016: Cho & Whitman, 2020). If *-ka/i* on the outer nominative/MS is nominative case, we expect it to be similarly flexible in terms of its construal.

6) Chae & Kim (2008) simply assume that the SP must be construable as [+property], leaving the exact content of how it comes to be construed as property-denoting open.

discourse context (Jang, 1998). This implies that SPs containing stative predicates or those construed as describing a resultant state are felicitous. Other approaches try to reduce the restrictions on the interpretive property of SP to the relationship between the MS and GS. Na & Huck (1983) invoke the idea of thematic subordination to model different types of semantic relationships between the MS and GS and use it to constrain well-formed SPs. Needless to say, this type of approach fails to generalize to A-MNCs, where there is no necessary relation between the MS and the GS, but the SP must still be construable as describing a relevant property of the MS.

Understandably, the exact interpretive properties of MNCs, except for the limited focus on the construal of the MS that undergirds the non-case analysis of *ka/i* on MS discussed earlier, are not major issues of concern to formal approaches and is a topic that a cognitive-functional perspective has much potential to shed light on.

An area of concern for formal analyses that cognitive-functional approaches do not have much to say about is the provenance of multiple identical case-marking. That is, assuming that *ka/i* on all the outer and inner nominatives are realizations of case, the question for formal approaches is how to model this, especially given the assumption that normal instances of case-licensing work in a one-to-one fashion, with a single nominal carrying case that is licensed (locally) by a unique case-governor. Proposals to account for the mechanisms that give rise to multiple instances of nominative case within formal approaches are diverse. At one extreme are proposals that assume that, despite appearance to the contrary, there is only one NP in MNCs that carries nominative case; all others carry homophonous particles that mark something other than case (Schütze, 2001). Another version of the unique case-marking approach assumes that while ka/i realizes nominative case in all NPs marked by it, only one instance, presumably the one assigned to the (unique) subject NP, is assigned case by the case-licensing head, while other NPs that carry the same particle arise through case agreement (Youn, 1990: Ryu, 2013). At the other end of the spectrum are proposals that assume that MNCs are characterized by the presence of multiple nom-marked NPs, because nominative is not an ‘assigned’ case, but one that is assigned as a last resort, or as a default case, to NPs that do not

receive case from case-assignment principles in the language (Kim, 1990). There is a related approach that holds that nominative in Korean is not a case that is assigned by a case-licensing head but is assigned based on the computation of structural relations in a certain local domain (Kang, 1985). This is similar to the Dependent Case view of Korean case assignment defended by later researchers (Levin, 2017: Lee, 2021). The Dependent Case system can be implemented by assuming that in MNCs there are multiple, layered, domains where nominative can be licensed.

With this background, we now turn to a critical appraisal of cognitive-functional research on MNCs.

3. Cognitive-functional approaches to MNCs

To the extent of our knowledge, not much work has been done on MNCs in linguistic research that is broadly within cognitive and/or functionally oriented, though the interest in MNCs and their ilk was sparked by the functionally oriented work of Li & Thompson (1976). Our goal in this section is to present analyses of MNCs in this tradition, with a view to assessing their answers to the questions identified as framing the debate about MNCs within formal approaches to MNCs.[7] Before engaging in this exercise, we must highlight some important distinctions that are sometimes glossed over regarding cognitive-functional approaches.

Cognitive approaches to language are often grouped together with functional approaches, sometimes under the rubric of cognitive-functional approaches. Both approaches view language as a complex system that involves cognitive, social, and communicative dimensions. They both emphasize the importance of language use in shaping linguistic structures and meanings. Both cognitive and functional approaches draw insights from multiple disciplines to explain language phenomena. However, it is crucial to understand that these two are distinct

7) That is, the following questions: [1] semantic/thematic licensing of non-selected NPs, [2] grammatical role of MS/GS, [3] typology of MNC, [4] case-marking, and [5] interpretive properties.

theoretical frameworks, each offering unique and significant perspectives on language and its usage. The cognitive approach focuses on elucidating the mental processes involved in language use, including how language is learned, processed, and represented in the mind. The functional approach focuses primarily on the communicative function of language, emphasizing how language functions in social contexts to achieve goals and maintain social relationships. Usage-based approaches are more functional than cognitive in this sense.[8)]

Cognitive Grammar (Langacker 1987, 1991, 2008, 2009) is an approach that is situated squarely within the cognitive tradition, where grammar is conceptualized and modeled in terms of assemblages of symbolic representations whose non-phonological primitives are semantic-conceptual, rather than formal-syntactic. Kumashiro & Langacker (2003) (K&L, hereafter) and Langacker (2004) dealt with Japanese MNCs (which they call double subject constructions) in CG. Based on K&L (2003), Park (2011, 2019) analyzes MNCs in Korean. This section introduces analyses of Korean MNCs from a Cognitive Grammar perspective based on said researchers' proposals.

3.1 Cognitive Grammar (CG) analyses of MNCs

3.1.1 Reference point subject

The gist of the aforementioned researchers' claims is that MNCs are a language-particular instantiation of the reference point phenomenon. A good analogy to describe the notion of reference point (RP) is that of bird watchers looking for falcons in a densely wooded area. One bird watcher spots a bird immediately and notifies his companion. Not seeing the bird right away, the companion would ask exactly where the bird is since the heavily wooded area provides many places for a falcon to perch. The first bird watcher would then provide some RP for the companion, perhaps with the aid of a preposition

8) This is not to deny that there are traditions that combine insights from both traditions. The term 'usage-based' was coined by Langacker (1987), and Langacker's CG falls within the category that combines insights from functional and cognitive traditions. Other works that can be categorized in this group include but are not limited to Bybee (2006, 2010), Goldberg (1995, 2006), and Croft (2001).

phrase: *The bird is near the big rock.* Although the example is an analogy, it would be fair to say that it explains this basic concept very clearly; an RP is a mental address that enables one entity to make mental contact with another, in this example, the companion with the falcon.[9)]

Conceptualized in this way, RP phenomena are pervasive in languages. In (6) below, the possessive, left-dislocated, topicalized nominals and the locative possessor exhibit RP properties with respect to the following nominal, predicate, or clause/comment.

(6) a. John's book
b. That movie, it's really starting to depress me.
c. That book, we never should have bought.
d. Na-eykey ttal-i iss-ta.
I-to daughter-NOM exist-DCL
'I have a daughter.'

Therefore, to call something an RP phenomenon is not saying much by itself because of the diverse ways in which the reference point-target relation can be encoded in the grammars of languages.

The specific claim that K&L and Langacker make about MNCs is that the construction instantiates something they call RP subject creation. Let us now compare the two sentences below to understand how it works: (7) is a regular clause where there is only one nominative-marked nominal, whereas (8) is an example of an MNC.

---

9) In this example, *the bird and the big rock* are individually conceptually salient. In this situation, the speaker first directs the listener's attention to the *big rock* to locate *the bird*, which is mentally accessible in relation to the big rock. For this reason, *the big rock* (reference point) functions as a mental address for *the bird* (target). Often, one reference point affords potential access to many different targets. As a result, the number of targets for one reference point is not definite. Nonetheless, some targets are more easily accessible through a reference point than others. Consider *the car's headlight* vs. * *the headlight's car*. The second example is unacceptable because it is difficult to draw a mental path from *the headlight to car*.

(7) Mary-ka yeyppu-ta.
M-NOM pretty-DCL
'Mary is pretty.'

(8) Mary-ka nwun-i yeyppu-ta.
M-NOM eye-NOM pretty-DCL
'Mary's eyes are pretty/Mary has pretty eyes'

In (7), the nominal Mary combines with the predicate *yeyppu-ta* 'pretty' to form a clause. Here, Mary is the subject/trajector. In comparison with (7), (8) illustrates a different situation. The outer nominal in (8) serves as an RP with respect to *nwun* 'eye' as well as the inner clause— *nwun-i yeyppu*-ta 'eyes are pretty.' Importantly, the outer nominal is realized as a subject, which arises from a language-particular mechanism of Reference point subject creation.[10] And because the newly created nominal is a subject/trajector, it is marked as such (nominative) by the case-marking system of the language, resulting in an MNC.

A second part of K&L's analysis involves the claim that not all MNCs are created equal. A sentence with two nom-marked NPs instantiates either a Double Subject Construction (DSC) proper or a complex predicate construction. (9－10) are examples of DSCs, whereas (11-12) are complex predicate constructions. The intuitive difference between the two sub-types of MNCs involves the degree of conceptual autonomy of the second nom-marked NP and the predicate. If it is autonomous, then it is a double subject construction, while if it isn't, then it instantiates a complex predicate construction.

(9) Taroo-ga fuku-ga itsumo hade-da.
T-NOM clothes-NOM always gaudy-COP
'Taro always has gaudy clothes.'
(K&L, 2003, p. 26)

10) Reference point subject creation is defined as "the relation between two adjacent levels in a symbolic assembly, such that the higher level constitutes a profiled reference point relationship whose target is the process profiled at the lower level" (K&L, 2003, pp. 31－32).

(10) Taroo-ga sashimi-ga tabe-rare-ru.
T-NOM sashimi-NOM eat-POT-INF
'Taroo can eat sashimi.'
(K&L, 2003, p. 26)

(11) Taroo-ga hana-ga hikui.
T-NOM nose-NOM low
'Taro has a flat nose.'
(K&L, 2003, p. 2)

(12) Taroo-ga aisukurimu-ga suki-na (koto)
T-NOM ice.cream-NOM like-be (that)
'(that) Taroo likes ice cream'
(K&L, 2003, p. 28)

They argue that the perceived degree of conceptual autonomy of NP2 + predicate correlates with differences in the subjecthood of the two nom-marked nominals: in DSCs, NP2 retains typical properties of subjects, while in the complex predicate construction, NP1 controls these properties; in other words, there are two distinct subjects in the former, while in the latter, there is only one. They consider three tests attributed to subjects in Japanese: honorification, reflexive, and embedding. Regarding these three tests, double subject constructions exhibit the following properties. First, only NP1 controls subject honorification. Second, both NP1 and NP2 can control the subject-oriented reflexive *jibun.* Third, embedding is not freely permitted due to the construction's structural complexity; two layers of clausal organization are needed for double subject constructions in K&L's analysis.[11] Complex predicates contrast with double subject proper in all three properties. Only NP1 controls

11) The reason given for why DSC type MNCs resist embedding is odd, since embedding can be recursive. The idea seems to be that if a DSC is embedded, there are three levels of embedded clauses, while with complex predicate-type MNCs, there are only two levels of embedding so that the added complexity of another layer of embedding should lead to differences in acceptability.

subject honorification and *jibun*. Unlike the case of double subject constructions, embedding is permitted in complex predicate constructions.

In dividing MNCs into subtypes, K&L's approach is reminiscent of the proposals for Korean MNCs that differentiate subtypes of MNCs according to their structure and derivation. What is peculiar is that their typology does not align with what we have seen for Korean MNCs, where the major distinction was made between P-MNC and A-MNC. The DSC-complex predicate dichotomy does not align with this distinction. For example, (9) is an instance of P-MNC, while (10) is that of A-MNC. The two subtypes are grouped under one label in their typology. Interestingly, these researchers treat the Nominative Object Construction (NOC) shown in (12) as a DSC, though most researchers do not share this view.

3.1.2 Park (2019)

Park (2011, 2019) takes a position similar to K&L regarding MNCs in Korean, in viewing them as RP subject constructions. The main difference between his analysis and K&L's has to do with the distinction between DSCs and complex predicate type MNCs in Korean. Park argues that the evidence does not support positing the distinction for Korean MNCs. The simple reason is that the grammatical tests that K&L employed do not justify the dichotomy in Korean. Neither is the perceived conceptual autonomy of the inner nominal + predicate (inner clause) a reliable diagnostic in distinguishing the two types.

First, there are MNCs where either NP1 or NP2 can control honorification in Korean.[12] Second, the Korean reflexive caki can be bound either by NP1 or NP2 even in MNCs that K&L would analyze as complex predicate constructions for which they predict only NP1 should be the possible antecedent. Third, almost any MNC can be embedded. In addition, the inner clause in putative complex

12) Park's example where either NP (or both) appears to control SH is the following:
(i) Kim-sensayng.nim-i atu-nim-i ttokttokha-si-ta.
K-teacher.HON-NOM son-HON-NOM smart-HON-DCL
'Professor Kim's son is smart.'
Both NP1 and NP2 carry the honorific suffix -nim, which makes it difficult to determine which nominal controls *si*-marking on the predicate.

predicate MNCs can be easily coordinated with that of putative double subject MNCs (cf. Park, 2019, p. 52 for examples). This type of coordination is expected to be unacceptable in K&L's analysis since the predicates are of different types (clause vs. predicate) in the two MNCs. There is thus no basis for the structural differentiation between DSCs and complex predicate type MNCs.

What about the distinction between P-MNCs and A-MNCs? Park's position agrees with those of researchers such as Yoon (2009) and Chae & Kim (2008), who do not assume they differ in structure. However, we know that there are differences between the two, specifically with respect to the Sentential Predicate/inner clause. In the former, we typically find an interpretive relation (such as thematic subordination, à la Na & Huck, 1993) holding between the MS and GS, while in the latter, there is no relationship between the two. Nevertheless, in both cases, the SP must express a relevant property of the referent of the MS (cf. Section 2).

The similarities and differences between the two are accounted for by Park in the following manner. In both constructions, the MS/outer nominal serves as an RP subject with respect to the inner clause. The main difference between the two types is whether the GS/inner nominal invokes another reference point. In the P-MNC in (14a), *nwun* 'eye' intrinsically invokes an RP (the possessor of eyes) by virtue of its meaning as a conceptually dependent relational nominal. This is shown schematically in (14b). Since R is the reference point with respect to *nwun* 'eye' in (14b), its possessor reading is naturally expected. When the RP is realized within the NP, we have an internal possession structure in (13).

(13) Cheli-uy nwun-i ppalkah-ta.
C-GEN eye-NOM red-DCL
'Chelswu's eyes are red.'

However, the RP invoked by *nwun* 'eyes' need not be realized within the NP. This is the situation in MNCs (aka external possession construction), where a new reference point relationship is created at the clausal level, as schematically shown in (14c). MNCs arise when the RPs invoked by the

nominal as in (14b) and introduced at the clausal level via reference point subject creation are identified. Thus, in the MNC in (14a), the outer nominal/MS Chelswu serves as the profiled reference point relationship whose target is the process profiled at the lower level. At the same time, it also profiles the reference point for the inner nominal/GS *nwun*, because in P-MNCs the two reference points and the relationships are equated.

(14) a. Chelswu-ka nwun-i ppalkah-ta.
C-NOM eye-NOM red-DCL
'Chelswu's eyes are red.'
b. [R nwun-i] ppalkah-ta
c. R1 [[R2 nwun-i] ppalkah-ta] R1 = R2

In a sense, the analysis is similar to Possessor Raising (PR) analyses. However, the mechanism that equates the two RPs in MNCs is not syntax; it is, if anything, a conceptual version of PR. And because the relation is non-syntactic, it does not predict that known constraints on syntactic dependencies should characterize the relation between the understood possessor of the inner nominal/GS and the outer nominal/MS.

For A-MNCs like (15a), Park proposes the following: unlike in P-MNCs, the inner nominal does not invoke a reference point because the inner clause in (15b) is readily conceptualized without invoking the outer nominal. In other words, in this type of MNC, there is no interpretive relationship between the inner nominal/GS and the outer nominal/MS. However, just as in P-MNCs, a reference point relationship is invoked and profiled at the composite-structure level via reference point subject creation. Therefore, the outer nominal/MS must be construable as profiling the relevant reference point. In the case of (15b), the RP evoked at the clausal level is LOCATION. The inner clause/SP states that this location affords a good view of *Mount Selak.san*, which is relevant information that can be predicated of locations.

(15) a. I kos-i Selak.san-i cal poi-n-ta
This place-NOM Mt.Selak-NOM well be.seen-PRS-DCL

'This place has a good view of Mt. Selak.'
b. Selak.san-i cal poi-n-ta
c. R [Selak.san-i cal poi-n-ta]

In Park's analysis, while P-MNCs and A-MNCs do not differ in terms of the structure, they do so at the interpretive level. By contrast, K&L posit a dichotomy of double subject and complex predicate type MNCs, based on the perceived conceptual autonomy of the inner clause and grammatical tests for subjects.

K&L's analyses are problematic because deciding between the double subject and complex predicate parses of MNCs by appeal to conceptual autonomy is not reliable. For example, K&L treat (16a) as a double subject type MNC, whereas (16b) is treated as a complex predicate MNC, based on the conceptual autonomy of the inner clause in the double subject construal. To us, however, the inner clause of (16a) exhibits a low degree of conceptual autonomy; 'wife's being young' cannot be conceptualized without saliently invoking the husband, just as 'nose being flat' cannot be uttered without the possessor of the nose in mind.[13] Since the grammatical tests do not clearly differentiate the outer and inner nominals in the case of Korean MNCs, the distinction between DSC and complex predicate MNCs is hard to maintain.

---

13) Conceptual autonomy of inner clauses/SP in MNCs seems to be a matter of degree and context-dependent. RP is strongly evoked when the inner nominal/GS is headed by an inherently relational nominal, such as body parts or kinship terms. This explains why most P-MNCs have inner nominals headed by relational nouns. In other cases, only the discourse context may facilitate the construal of an inner clause as lacking autonomy and hence be construed as predicating a property. Consider the following:

(ii) ku-ka tani-nun hoysa-ka kos mangha-l kes-i-ta.
that.person-NOM go-ADN company-NOM soon go.bust-ADN KES-COP-DCL
'The company at which he is employed will go bust soon.'
The sentence is not felt to be incomplete when we know the referent of the pronoun within the subject. However, it can function as the inner clause in an MNC.

(iii) Cheli-ka ku-ka tani-nun hoysa-ka kos mangha-l kes-i-ta.
C-NOM that.person-NOM go-ADN company-NOM soon go.bust-ADN KES-COP-DCL
'Chelswu's company, where he is employed, will go bust soon.'

We hypothesize that even in (iii), the RP evoked by the inner nominal/GS is equated with that introduced at the clausal level.

(16) a. Yamada-sensei-ga okusan-ga o-wakai.
Y-teacher-NOM wife-NOM HON-young
'Professor Yamada has a young wife.'
(K&L, 2003, p. 27)
b. Taroo-ga hana-ga hikui.
T-NOM nose-NOM low
'Taro has a flat nose.'
(K&L, 2003, p. 2)

Things are different in the case of A-MNCs, where the inner clause is felt to have a sense of conceptual autonomy.[14] The examples in (17) illustrate A-MNCs. The inner clauses in (17a) and (17b) seem conceptually autonomous when compared to the examples in (16); we can note the frequent falling of rain without paying attention to the month, and we can see lots of trucks going by without saliently invoking the highway. This is because A-MNCs do not involve the RPs at the clausal level being equated with that invoked by the inner nominal/GS.

(17) a. yuwel-i pi-ka cacwu o-n-ta.
June-NOM rain-NOM frequently come-PRS-DCL
'It rains a lot in June.'
b. I kosoktolo-ka thulek-i manhi tani-n-ta.
this highway-NOM truck-NOM a.lot.of drive-PRS-DCL
'Lots of trucks drive on this highway.'

Since A-MNCs do not involve the equating of reference points, there is no relationship between the outer nominal/MS and the inner nominal/GS. The fact that the outer nominal/MS cannot be expressed as a possessor of the inner nominal/GS, as indicated in (18), naturally follows.

14) The reason is that in the inner clause/SP in P-MNCs an argument role of the relational noun that heads GS is unsaturated, while in A-MNCs, the obligatory arguments of the inner clause/SP are fully saturated within it.

(18) a. *yuwel-uy pi-ka cacwu o-n-ta.
June-GEN rain-NOM frequently come-PRS-DCL
Intended: 'It rains a lot in June.'
b. *i kosoktolo-uy thulek-i manhi tani-n-ta.
this highway-GEN truck-NOM a.lot.of drive-PRS-DCL
Intended: 'Lots of trucks drive on this highway.'

Nevertheless, the inner clause/SP of A-MNCs is interpretively constrained, as we will see in detail in the next section. Not just any clause can function felicitously as the SP of A-MNCs. The question is why this is so, and how this is modeled in the CG account of Park (2019).

The answer comes from the fact that the clausal subject is a reference point subject whose target is the process profiled by the entire inner clause/SP. For example, *yuwel* 'June' in (17a), functions as the reference point with respect to the target clause *pi-ka cacwu o-n-ta.* The reference point affords potential access to many different targets in its domain (called dominion in CG). In the case of (17a), the domain comprises a set of targets that can be readily associated with *yuwel* 'June.' The conceptualizer then mentally zooms in on one particular target in the domain that can characterize *yuwel* 'June.' Park calls this domain highlighting, following Croft (1993).

Specifically, in (17a), the MS/RP subject *yuwel* 'June' evokes multiple targets in its domain such as time, season, weather, etc. The inner clause/SP must state something that is relevant to one of the evoked targets. The SP, pi-ka cacwu o-n-ta, 'it rains a lot', highlights the domain of weather and states that in this domain, *yuwel* is characterized by the proposition that it rains a lot. This is relevant information and the resulting MNC is judged acceptable.

Conceptualized in this way, the reason that the A-MNC in (19) is odd becomes easy to understand.

(19) ?? yuwel-i Cheli-ka cip-ey o-n-ta.
June-NOM C-NOM home-to come-PRS-DCL
Intended: 'Cheli comes home in June.'

For the MNC to be felicitous, the inner clause/SP must state something relevant to one of the targets in the domain evoked by the MS/RP subject *yuwel*. The proposition that 'Cheli is coming home' highlights the domain of time, but its content can hardly be construed as characteristic/relevant in general to how we think of months of the year. A particular individual coming home is not a general property of the month of June.

However, things change when we have an indication that the proposition is important/relevant. This can happen when the MS *yuwel* is interpreted with narrow focus, which makes the inner clause/SP the relevant presupposition in that discourse context. Thus, (20) can become acceptable in the following context.

(20) Q: Encey Cheli-ka cip-ey o-ni? Phalwel? Animyen yuwel?
when C-NOM home-to come-Q August or June
'When does Cheli come home? June or August?
A: (phalwel-i anila) yuwel-i Cheli-ka cip-ey o-n-tay.
August-NOM not June-NOM C-NOM home-to come-PRS-QS
'(Not in August) (I heard that) it is June when Cheli comes home.

Similarly, the improved acceptability of (21) is also predicted. Notice that the narrow focus construal of *yuwel* 'June' is not required in (21) below.

(21) yuwel-i taypwupwun-uy hakkyo-ka panghak-ul ha-n-ta.
June-NOM most-GEN school-NOM break-ACC do-PRS-DCL
'Most schools start summer break in June.'

A relevant proposition in the domain of time with respect to calendar months could be information about significant events such as the beginning and end of the school year, and this explains the felicity of (21).

4. Other cognitive-functional approaches

Park (2011, 2019) is the most detailed cognitive treatment of the MNC we are aware of, but there are other works that approach aspects of MNCs from a relatively cognitive-functional perspective. In the remaining subsections, we evaluate three proposals that draw on insights from functional approaches.

4.1 A functional syntax approach (Jang, 1998)

The work does not offer a comprehensive analysis of MNCs but focuses on what Jang (1998) takes to be the interpretive conditions of felicitous SPs in MNCs. Since he does not deal with the syntactic aspects of MNCs other than a brief remark that what we call the MS may not be a subject, we are not certain of the extent to which the work can be considered functionalist. The overall perspective seems similar to that adopted in Kuno's works (Kuno, 1987, etc.). The focus of Kuno's research is not to frame linguistic generalizations in functional-communicative terms but to identify non-structural and functional factors that constrain grammatical rules and generalizations framed in generative grammar. Jang (1998) is to be understood in this light.

In any case, Jang's main argument is that MNCs are possible only when the first NP in the MNC is understood as being "characterized" by the remaining clause. Characterization can be equated to other factors, though broadly Jang seems to have in mind something like individual-level or property predication.

With this in mind, let us consider Jang's examples. According to Jang, (22) is a felicitous MNC because someone's mother having passed away is an important societal milestone that could be used to characterize individuals. It is a state that is not transient, given the irreversible nature of death.

(22) Chelswu-ka emeni-ka tolaka-si-ess-ta.
C-NOM mother-NOM pass.away-HON-PST-DCL
'Chelswu's mother passed away.'
(Jang, 1998, p. 102)

Jang judges the MNC in (23) as less than felicitous because the particular incident of *Chelswu's* brother crying may not be significant enough to characterize *Chelswu.* In addition, the event is certainly transient since the crying will likely stop, which makes using the state that results from his brother's crying not particularly useful in characterizing *Chelswu.*

(23) *Chelswu-ka tongsayng-i wul-ko iss-ta.
C-NOM brother/sister-NOM cry-COMP exist-DCL
'Chelswu's sister is crying.'
(Jang, 1998, p. 104).

In a nutshell, Jang argues that property/state-denoting predicates are optimal in the MNC because those predicates can be construed easily as characterizing the first NP. Jang notes that the topic marker, *-(n)un,* increases the characterizational ability of predicates. Substituting *-ka* with nun for MNCs that fail the characterization requirement is said to improve it, as shown in (24). The judgments reported are Jang's.

(24) a. *Chelswu-ka oyn pal-i nelp-ta.
C-NOM left foot-NOM wide-DCL
'Chelwu has a wide left foot.'
(Jang, 1998, p. 111)
b. Chelswu-nun oyn pal-i nelp-ta.
C-TOP left foot-NOM wide-DCL
'As for Chelswu, he has a wide left foot.'
(Jang, 1998, p. 111)

We argue below that Jang's (1998) view of what constitutes a "characterizing" property in MNCs is overly restrictive. While an example of an MNC given out of the blue, or one where the MS receives a topic-like interpretation, prefers the SP to be construable as property-denoting, this is not the case for all MNCs. In particular, SPs that do not denote stable properties are fine when the MS is construed as receiving narrow focus. In other words,

the interplay of the interpretation of the MS and what counts as characteristic/characterizing for the SP is not noted at all by Jang.

Let us revisit (23) with a specific discourse context. In the answer (25A) to the question posed in (25Q), the first NP has a focal interpretation. Although 'sister's crying' is not an inherent/characteristic property of Chelswu, the property can be ascribed to the MS *Chelswu* in certain MNCs, such as the discourse context described below.

(25) Q. [Situation: There are children in the afterschool program called Girls Club. Today is the day the children's siblings come and play with their sisters. After confirming every child's sibling has arrived, the director notices one child crying. Then, she's asking this question]: Whose sister is crying?

A. Chelswu-ka tongsayng-i wul-ko iss-e.
C-NOM sister/brother-NOM cry-COMP exist-DCL
'It is Chelswu whose sister is crying.'

The lack of consideration of discourse context is a pervasive problem for Jang's paper. For example, we do not agree with the contrast in (24). Both statements require appropriate context, one where the width of one's left foot is at issue. Topic-marking in (24b) just facilitates the conjuring up of such contexts, but there is no material difference between the two, as far as we are concerned. This is so especially since it is by now well-known that *-ka*-marked nominals can be construed as topics in Korean (Lee & Shimojo, 2016: Park & Yeon, 2023, etc.).

4.2 A discourse structure-based approach (Hong, 2014)

Hong (2014) falls within the functionalist approach category. While not discounting the role of argument structure, syntax, semantics, and information structure in the analysis of MNCs, Hong claims that focusing just on these levels of analyses misses an overarching organizational principle behind MNCs and other multiple case constructions such as Multiple Accusative Constructions (MACs). Specifically, she points out the limited utility of focusing on the

fine-grained semantic relations between MS and GS (such as that pursued in Ryu, 2013) and points out, correctly, that the MS cannot be identified as topic or focus in information-structural terms. She also argues against analyses that posit multiple subject-predicate partitions in MNCs, given the unreliability of subject diagnostics in Korean and because different nominals in MNCs control typical subject properties. Finally, she claims that focusing on the subject-predicate partitioning of MNCs fails to highlight the affinity of MNCs and MACs because the latter clearly does not implicate subject-predicate partitions but shares similarities at the Discourse Structure level.

Hong argues that MNCs should be explained in terms of how speakers package and arrange the information they intend to convey within a sentence. After emphasizing the communicative motivation for MNCs, she proposes an analysis of MNCs in terms of a layer of organization she calls Discourse Structure (DS). She takes this structure to consist of iterative partitions of utterances into Discourse Themes and Discourse Rhemes, an organization that she takes to be rooted in characteristic features of Korean as a discourse-oriented language with SOV order (Hong, 2014, p. 686).

Since Hong borrows her notion of Discourse Structure from Halliday (1985/1994), we will briefly introduce Halliday's Thematic Structure. Halliday's Thematic Structure revolves around the organization of language based on how participants and circumstances are highlighted within a clause. It focuses on identifying the thematic elements of a sentence, namely the Theme and the Rheme. The Theme, which is typically the initial part of the clause, introduces what the sentence is about, while the Rheme provides further information or comments on the Theme. This thematic organization helps understand how information is structured and communicated in discourse, emphasizing the functional roles of elements within a clause to effectively convey meaning. Theme-Rheme dichotomy is similar to other distinctions, such as Topic-Comment (or Focus-Ground/Presupposition).

That being said, Hong's Discourse Theme (DT) and Discourse Rheme (DR) differ from Halliday's Theme and Rheme in three ways. First, Halliday's Theme includes all elements appearing before the predicate. Second, Halliday equates (Topical) Theme with topic. Third, the Theme-Rheme division occurs only once

in a sentence in Halliday's analyses. Hong's DT analysis for Korean differs from Halliday's Theme in that DT consists of only one constituent. Hong also assumes that Theme and topic are distinct notions. Unlike topic, DT does not have to be old information or something presupposed. As shown in (26a), MS (DT for Hong) can be an indefinite NP. An interrogative MNC, such as (26b), is also acceptable, where the wh-expression serves as the starting point of the message without being a topic of the sentence.

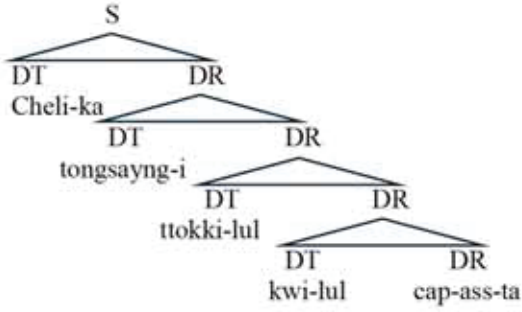
(26) a. Weyn yeca-ka son-i kuli khu-nya?
what woman-NOM hand-NOM that.much big-Q
'What kind of woman has such a big hand!'
(Hong, 2014, p. 692)
b. Nwu-ka son-i khu-nya? who-NOM hand-NOM big-Q
'Whose hand is big?'

So what explains the differences between how DS is organized in different languages? Hong seems to be assuming that the differences in how DT is realized reflect the heavily discourse-oriented nature of Korean, as well as its head-finality, though these are at best suggestions, from what we can tell.

Let us consider (27), a simplified example from Hong that illustrates how she analyzes information packaging using DS.

(27) Cheli-ka tongsayng-i ttokki-lul kwi-lul cap-ass-ta
C-nom brother-nom rabbit-acc ears-acc catch-pst-decl
'Cheli's brother caught the rabbit by the ears.'
(Simplified from Hong, 2014, p. 687)

The DT parse of an MNC (which also has MAC in the predicate portion) is shown in Figure 1 for the sentence in (27).



[Figure 1] The Discourse Structure for (27)

In this situation, the speaker starts the discourse/message with *Cheli-ka,* and the hearer expects relevant information about *Cheli* to follow. This is because the interlocutors share the assumption that the purpose of the discourse is to say something about *Cheli.* As for the requirement that the constituent we are calling SP (and which Hong calls DR, when it is a part of MNC) must state something "about" the MS (DT for Hong), she seems to be in agreement with our view that the "aboutness" condition (equivalently, the relevant property predication condition) cannot be reduced to the requirement that the MS be construed information-structurally as referentially and/or relationally given. In the discourse provided in (28), the old/presupposed information is in the predicate/SP, and the MS is relationally new (i.e., focus).

(28) A: (na cikum kulim-ul kuli-nuntey son-i khu-n
I now picture-ACC draw-CONN hand-NOM big-ADN
moteyl-i philyohay).
model-NOM need.END
'I am drawing a picture right now, and I need someone with big hands.'
Nwu-ka son-i kh(u)-e?
who-NOM hand-NOM big-Q
'Who's got big hands?'

B: Cheli-ka son-i khu-ci!
C-NOM hand-NOM big-EXCL
'Cheli does!'
(Hong, 2014, p. 693)

Similarly, her argument about the relevance/aboutness condition is that it too is context-dependent, a position that we agree with.

To illustrate the context-dependent nature of what counts as a felicitous SP/DR in an MNC, she gives the following examples, where the GS within the SP/DR contains a relational nominal son 'hand'. In many analyses of MNCs, the MS/DT must denote the inalienable possessor of the hand, as in (29a). Hong points out, however, that the inalienable interpretation is not necessary, as shown in (29b－c), where the hand cannot be *Cheli's* own (Hong, 2014, p. 693).[15)]

(29) a. Cheli-ka son-i khu-ta.
C-NOM hand-NOM big-DCL
'Cheli's hand is big.'
b. Cheli-ka (pwulhaynghakey) (wuli) son-i an-tah-nun-ta.
C-NOM unfortunately we hand-NOM NEG-reach-PRS-DCL
'(Unfortunately) (our) hands couldn't reach Cheli.'

15) The parse of (29b), where we added items that were not originally in Hong's paper to make them natural, involves the MS Cheli-ka binding the (dative-marked) null complement of the predicate an-tah-ta 'not.reach,' as in (iv).
(iv) Cheli-kai (pwulhaynghakey) [(wuli) son-i ei an-tah-nun-ta]
C-NOM unfortunately (our) hands-NOM neg-reach-PRS-DCL
'(Unfortunately) (our) hands couldn't reach Cheli.'
(29c) also has an interesting structure, where the SP/inner clause appears to be an inverse copula construction, to which the MS is connected by coindexation with the possessor. Schematically, the parse is illustrated in (v).
(v) Cheli-kai [son-i (ku-uyi) cenmwun-i-ta]
C-NOM hands-NOM (he-GEM) specialty-COP-DCL
'Cheli specializes in hands (i.e., he is a hand surgeon/specialist).'
As MNCs, these are atypical as they involve the linking/binding between the MS and a position other than the possessor of the GS. Yoon (2007) argues that while rare, such MNCs are attested.

c. Cheli-ka son-i (ku-uy) cenmwun-i-ta.
C-NOM hand-NOM he-GEN specialty-COP-DCL
'Cheli specializes in hands (i.e., he is a hand surgeon/specialist).'

The context relevance of what counts as (what Yoon calls) "newsworthy" MS (or DT) (and a relevant SP, or relevant DR) is also shown by (30), where the body part nominal and not the human possessor is chosen as DT (Hong, 2014, p. 694).

(30) a. Son-i Chelswu-ka khu-ta.
hand-NOM C-NOM big-DCL
'As for hands, Cheli has a big one.'
b. (Wuli) son-i (pwulhayngkakey) Chelswu-ka an-tah-nun-ta.
we hand-NOM unfortunately C-NOM NEG-reach
'As for (our) hands, (unfortunately) (they) couldn't reach Cheli.'
c. Son-i Chelswu-ka (ku-uy) cenmwun-i-ta.
hand-NOM C-NOM he-GEN specialty-COP-DCL
'Speaking of hand specialists, Cheli's is one.'

Yoon (2015) points out the difficulties such examples raise for syntactic analyses of MNCs invoking PR.

Evaluating Hong's proposal is somewhat difficult because, at one level, she is proposing a highly modular analysis of MNCs where the full repertoire of grammatical resources is involved in accounting for various aspects of MNCs. Her view is that we need argument structure to model the fact that the MS is not an argument of the basic predicate and syntactic mechanisms of case-marking to account for the multiple appearances of nominative in MNCs (and accusative in MACs). She also assumes that the information-structural status of nominals/MS in MNCs is determined by the information packaging of the MNC in a discourse context. Many of her observations about the MS/DT and SP/DR are points that we agree with. So, the question is what we gain by imposing a layer of DS parse on MNCs that is orthogonal to all other modular dimensions of analyses.

Aside from specific points made about different aspects of MNCs, we find surprisingly little engagement of the rationale for the DS overlay on MNCs. The closest argument for DS that Hong provides is that the iterative DT-DR partition is something that represents the discourse-oriented nature of Korean well and is also natural given its SOV, or strict head-final, syntax. However, the causal or correlational connections between the pieces of the argument are left largely implicit, making it difficult to evaluate this line of possible argument for the particular DS structuring of Korean sentences. What is particularly concerning is the overlap between her DS and information structure: why do we need both?

Leaving this aside for now, the major point of disagreement between Hong and proponents of the multiple-subjects-layered-predicates analysis of MNCs seems to hang on her criticism of the sentential predication analysis and the related idea that both the outer and inner nominals are subjects in MNCs. Hong criticizes this view based on what she takes to be the definition of subjecthood in Universal Grammar (UG). According to her, the notion of subjects and predicates are categories that make sense for "grammar-oriented" languages like English, where there is a unique subject-like NP paired with a unique predicate. If one adopts this view, there can only be one subject in MNCs, though it is hard to find proponents of UG who hold this simplistic view.

As discussed earlier, the current consensus on subjects and subjecthood is that the properties that are typically associated with subjects are distributed positionally and derivationally in different constructions and languages. Unified accounts of split subject behavior in typologically different languages (ergative-absolutive vs. nominative-accusative) abound. Since Keenan (1976), it has been recognized that grammatical subjects in languages like English conflate roles that can be controlled by distinct nominals in some languages. Hong does not countenance this possibility. Instead, she assumes that typical subject properties—formal marking properties like nominative case and controlling subject-verb agreement, functional properties like being the subject of a semantic predicate, and distributional properties like being able to function as a pivot-should converge on a single nominal. However, since they are distributed among different NPs in MNCs, she questions whether the notion of subject is useful for Korean and proposes instead to capture the common properties of the

multiple nom-marked NPs through her DS proposal.

Let us illustrate Hong's position with the examples in (31). She claims that both *Chelswu* and *halapeci* 'grandfather' should be the subjects when viewed from the functional dimension because they are the notional subjects of their respective predicates in (31a). However, Hong says only *halapeci* behaves like a subject when it comes to controlling honorific agreement. In (31b), only *Chelswu* can undergo SOR, which is another common diagnostic used to identify subjects cross-linguistically. In other words, *Chelswu* and *halapeci* exhibit only partial subject properties. Therefore, they cannot both be subjects. From this, she argues that notions like subjects, etc., may not be helpful in the analysis of languages like Korean.

(31) a. Chelswu-ka halapeci-ka sensayngnim-i-si-ess-ta.
C-NOM grandfather-NOM teacher-COP-HON-PST-DCL
'Chelswu's grandfather was a teacher.'
(Hong 2014: 685)

b. Na-nun Chelswu-lul [halapeci-ka sensayngnim-i-si-ess-ta-ko]
I-TOP C-ACC grandfather-NOM teacher-COP-HON-PST-DCL-COMP
kiek-ha-n-ta.
remember-do-PRS-DCL
'I remember that Chelswu's grandfather was a teacher.'
(Hong, 2014, p. 685)

We do not believe this is a valid criticism of the multiple subject approach to MNCs, given that there are proposals that take both the MS and GS to be subjects but also explain the differences with respect to which typical subject properties are controlled by which subject in MNCs (Yoon 2004, 2007, 2009).[16)]

16) Another criticism against the clausal predicate approach that Hong makes is that it cannot generalize to MACs. It is unclear why this is a legitimate criticism. The set of properties that must obtain between outer and inner NPs marked accusative, which we can call Major versus Grammatical Objects, are quite different from those that hold between MS and GS, as is well-known. That is, viewing the 'major object' in MACs and the MS in MNCs as DTs is insufficient to explain the differences between the two multiple case-marking constructions.

Hong points to the fact that different nom-marked NPs in MNCs can split common subject properties to argue against the utility of the concept of subject, and presumably grammatical relations in general, in Korean and as a motivation of her DS analysis where what is shared by the nom-marked nominals in MNCs is their status as Discourse Theme (DT). However, since DT status is conferred not only on the multiple nom-marked NPs in MNCs, but also acc-marked NPs in MACs, because being a DT is orthogonal to case-marking, calling the nom-marked NPs Discourse Themes cannot suffice to account for their properties. For example, why does the highest/first nom-marked NP/DT undergo SOR while subject honorification is controlled by some other nom-marked NP/DT? The ability to undergo SOR is surely not a general property of constituents functioning as DTs cross-linguistically; it is a property that is reserved for nominals that have the status of subjects in some sense, as argued by Yoon (2007), who showed that the non-subject constituents of the embedded clause that can be targeted by SOR in Korean are necessarily Major Subjects, and MS undergoes SOR qua a Pivot subject, as is the case cross-linguistically.

In Hong's view, the interpretive constraint on MS-SP partition of MNCs at the level of DS, where it is partitioned into DT-DR, is relevance/aboutness.[17] To her credit, she shows that speaker's judgment that the SP/inner clause predicates something relevant to/about the referent of the MS is highly context-dependent and cannot be reduced to specific interpretive relations between the MS and GS (as per Ryu, 2013: Na & Huck, 1993, etc.) or the requirement that the lexical predicate of the inner clause be stative/individual-level (contra Jang, 1998: pro Chae & Kim, 2008: Yoon, 2007: Park, 2011, 2019, etc.). However, Hong does not provide an account of how context-dependent relevance/aboutness is computed by language users. There is no denying that DR must be relevant to DT to make an utterance felicitous. For example, the inner clause in (31a) is understood as saying something relevant to *halapeci* 'grandfather.'

But how this relevance is computed needs to be clarified. As discussed in Section 3.1.2, one way to flesh out the relevance condition is to make use of

17) We do not believe she uses the term *relevance* in the technical sense of Relevance Theory (Sperber & Wilson, 1986/1995: Clark, 2013) but informally and synonymously with "aboutness."

Croft's (1993) domain highlighting. Induced by the inner clause, the component domain, i.e., MONEY/FINANCE, is highlighted in the domain matrix of *halapeci*. Through this domain-highlighting mechanism, the statement in DR becomes relevant to DT.

Overall, while there are aspects of Hong's work that we are in agreement with, especially the expanded generalizations about possible MNCs that are problematic for formal approaches, her major goal of motivating the need for a layering of DS consisting of iterative partitions of DT-DR as the discourse scaffolding of Korean utterances is underdeveloped at best. Nor does she make a successful connection between the discourse scaffolding and other salient aspects of Korean, such as its heightened discourse-orientation and strict head-final order.

4.3 A Radical Construction Grammar approach (I. Kim, 2023)

The aim of I. Kim's (2023) proposal is two-fold. First, he criticizes previous functional-typological studies that analyze Korean MNCs as topic-comment sentences. Second, he proposes a clausal predicate analysis, where the outer NP/MS is a subject, and implements his analysis in Croft's (2001) Radical Construction Grammar (RCG).

Since RCG is a relatively less-known framework, we would like to provide a quick summary. The term "radical" in RCG signifies a departure from generative approaches to syntax, emphasizing the role of constructions at all levels of linguistic analysis, including morphosyntax, syntax, and semantics. Perhaps a more unique property of RCG is its typological foundation. RCG integrates insights from typology into its constructional analyses. By examining a broad range of related constructions across languages, RCG seeks to identify universal principles underlying the diversity of constructions found in human languages. I. Kim's multi-layered analysis of the MNC given in (32) is illustrated in Table 1 below.

(32) ku nala-ka umsik-i pissa-ta.
that country-NOM food-NOM expensive-DCL
'The food in the country is expensive.'
(I. Kim, 2023, p. 524)

[Table 1] RCC analysis of (27) (I. Kim, 2023, p. 525)

Sentence	*ku nala-ka*	*umsik-i*	*pissa-ta*
Construction	Korean Predicate Clause Construction		
Roles	ClPredSubj	IntrSubj	IntrPred
		IntrCl	
semantic category	object	object	property
		situation	
information packaging	reference	reference	predication
		predication	
construction	predicate clause (situation predication)		
strategy	zero coded strategy		

Constructions in RCG are form-function pairings, with function further divided into information packaging and semantic content/category. The constructional parse of MNC has information about the grammatical roles (third line) that compose the construction (second line). The form (first line) as well as the particular grammatical aspects and component roles in the construction (second and third lines) are language-specific. The functional parse of the construction part (fourth and fifth lines) shows the semantic and information-structural roles of the components of the construction in crosslinguistic functional terms. The typological functional grounding of the particular construction (Korean Predicate Clause Construction, hereafter KPCC) is described in the last two lines. The last line says that the KPCC uses a zero-coding strategy, that is, it juxtaposes the clausal subject and the predicate directly without the use of a construction-specific marker.[18] The line immediately above it says that the KPCC is a predicate clause (situation predication) construction, which may be found in other languages with constructions specific to them.

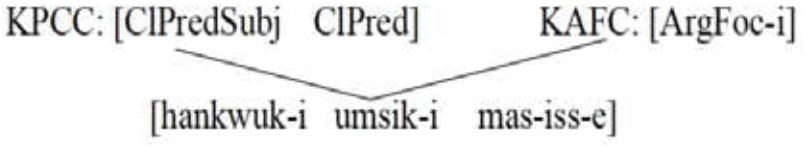
As in other construction-based approaches, RCG assumes a hierarchy of constructions, and individual constructions may inherit properties from superordinate constructions in the hierarchy. Multiple inheritance is seen below.

18) *-ka* is not a dedicated marker of the construction since it is a general case-marker for subjects.

The MNC in (33b) answers (33a). As an answer to (33a), the subject of the clausal predicate in (33b)—*Hankwuk* 'Korea'—is required to be an argument focus.

(33) a. Enu nala-ka umsik-i masiss-ni?
which country-NOM food-NOM delicious-Q
'Which country's food is delicious?'
b. Hankwuk-i umsik-i masiss-e.
Korea-NOM food-NOM delicious-End
'The food in Korea is delicious.'
(I. Kim, 2023, p. 530)

This requirement is satisfied by the multiple inheritance system that consists of two constructions: KPCC and Korean Argument Focus Construction (KAFC). These two constructions are represented in Figure 2, where KPCC depicts the construction with the clausal predicate and its subject, and KAFC illustrates the construction that contains one nominative-marked focus.



[Figure 2] Multiple parents for (33b) (I. Kim 2023: 531)

By inheriting from two parents, a specific type of information structure arises for (33b), where the first nominal receives focus interpretation with the nominative marking, without a dedicated focus-marker (such as *man*).

In terms of the analysis of the details of MNCs, the proposal is less specific than many formal analyses (such as Chae & Kim, 2008: KSY, 2007) or the CG analysis of Park (2011, 2019), except for the additional information showing how the KPCC is situated within the broader cross-linguistic inventory of related constructions.

The main aims of I. Kim (2023) are to argue against a topic-comment analysis of Korean MNCs and to defend the clausal predicate-subject analysis of KPCC/MNCs. His core argument in this regard is that in most functional and descriptive research that takes the outer nominative/MS as a topic, the term is used in an intuitive and imprecise sense. He then goes on to develop a definition of topics as relationally or referentially given and proceeds to show that the outer nominal/MS in MNCs need not have these properties because MNCs allow a variety of information packaging.

This is a useful exercise and the interpretive flexibility of the outer nominal/MS in MNCs is something that we agree with, as do scholars such as Hong (2014). However, there are claims made in I. Kim's paper, which, though not central to the argument he is making, are problematic. First, his evaluation of previous functionally oriented work on MNCs is misguided and selective. In particular, although he mentions Park & Yeon (2023) as endorsing a topic-comment analysis of MNCs, the assessment is incorrect. Park & Yeon (2023) observe that the first nominal in (34) has a topic construal in root contexts because it is construed as given referentially and relationally.

(34) Cheli-ka apeci-ka pwucaya.
C-NOM father-NOM rich
'Cheli, (his) father is rich.'
(Park & Yeon, 2023, p. 20)

But their point was that this is due to the lack of contextualizing context for examples such as (34) and is not a claim that (34) is always a topic-comment construction. As we have seen, with the right context, the outer nominal can introduce novel referents or have focal interpretation. I. Kim further criticizes that Park & Yeon (2023) use the notions of referential and relational givenness without justification. However, Park & Yeon (2023, pp. 21) clearly state that a topic must be referentially and relationally given. They also provide clear definitions of referential and relational givenness. In fact, I. Kim (2023, pp. 512−513) uses an almost identical definition of relational givenness as Park & Yeon (2023).

It is also unfortunate that he states that almost all extant research analyzes MNCs as a topic-comment structure, where the first NP is a topic. According to I. Kim (2023), only a few scholars such as Rhee (1999) and Chae & Kim (2008) have recognized the interpretive flexibility of the MS nominal. He (I. Kim, 2023, p. 515) further claims that *Kwukehak* scholars have the same "problem" in that they analyze MNCs as a topic-comment structure without defining the topic in precise terms. This is an erroneous assessment. Some *Kwukehak* scholars made elaborate observations on MNCs and concluded that the topic-comment split does not always work in accounting for them. Y. Choi (2016) and her work on information structure (Y. Choi 2018, 2019, 2020, 2022, among others) are good examples. In addition, besides his earlier work with H.-R. Chae, there are many examples of formal analyses that view the outer nominal/MS as a subject, which is flexibly interpreted in information structural terms depending on the discourse context (Yoon, 2004, 2007, 2009).

In addition to the misrepresentation of previous research, I. Kim (2023) lacks an explanation of the relationship between a topic-comment interpretation and the notion of a subject of the clausal-predicate. He (I. Kim, 2023, p. 532) states that "[g]iven the problems of the topic-comment analysis of the KPCC, this paper proposed that the KPCC should be analyzed as a predicate clause construction […]" It seems to us that I. Kim assumes that the non-topic-comment properties of MNCs naturally lead to (or support) the clause predicate analysis. However, they are orthogonal concepts; these two have no causal relation. The subjecthood of MS needs to be argued for, not assumed.

5. Summary and conclusion

In the Introduction, we raised three questions, which are summarized in (35).

(35) a. How many types of MNCs exist, and what criteria define these types?
b. Do they function as subjects or fulfill other roles? If they are subjects, why is there variation among them?

c. What is the relationship between Major Subject (MS) and Grammatical Subject (GS), and what are the defining characteristics of Sentential Predicates (SP) and Major Subjects (MS)?

We attempted to answer the questions through critical reviews of extant research from functionalist viewpoints. Regarding the typology of MNCs addressed in (35a), our conclusion is that we need not catalog different types of MNCs structurally. While P-MNCs and A-MNCs do not differ in terms of structure, they do so at the interpretive level. The crucial difference comes from whether there is a direct conceptual relation between MS and GS. As for (35b), our position is that both MS and GS are subjects, though their grammatical statuses are not identical. MS is the subject in relation to the SP/inner clause, but GS is the subject of a VP predicate (Yoon 2007, 2009, 2015). This position is aligned with the functionalist analysis proposed by Park (2019), where MS is tantamount to the reference point subject with respect to the inner clause, and GS serves as an inherent reference point in relation to the VP predicate. This difference predicts different types of behaviors of MS and GS both at syntactic and conceptual (interpretive) levels. To answer (35c), we identified two types of MNCs on the conceptual plane. In the first type (P-MNC), MS and GS exhibit a possession-like relationship, resulting from a PR-like mechanism operating at a conceptual level. We don't need this mechanism for the second type (A-MNC).

What is the defining characteristic of MS, then? In a nutshell, something chosen as an MS must be "newsworthy." This characteristic is symptomatic of MS's role as a reference point subject. As a mental address to a target concept, the MS qualifies as the prime candidate to be "talked about" in a discourse. Note that GS does not need this property; it can even be an expletive. To identify the defining characteristics of SP, we need to consider the interplay between MS's interpretive properties and SP's felicity. If the MS is construed as a topic, or if the MNC is uttered in a neutral context, where the MS is neither topical nor receives narrow focus, the SP should be construable as predicating a property of the referent of the MS that could be thought of as characteristic of the MS. However, when the MS is construed with narrow focus, the range of acceptable SPs in MNCs is widened. Any SP that can be construed as denoting

a relevant property in that context can become acceptable.

When we work in our favored silos, we tend to miss convergences among ideas. Similarly, when ideas are expressed in a theoretical idiom that has limited local, or at best, regional, currency, it may become difficult to assess the core insights underlying them and to convey the insights to those conversant in a different theoretical language. Working within a particular framework of ideas, practitioners are often beholden to guiding assumptions that may need to be critically re-evaluated but are taken to be the sacred cows that need to be revered at all costs. Examining atypical phenomena, such as, MNCs from a multiplicity of perspectives is an interesting exercise because doing so allows us to disentangle some of these connections, and shed light on the blind alleys to which we may have been unwittingly led in our analyses.

Korean MNCs have drawn a great deal of attention mainly from two different traditions. The first concerns *Kwukehak* scholarship, in which the focus tends to be placed on description over theory and on an attempt to eschew universal accounts in favor of accounts that work best for Korean. While this tradition has much insightful work, it is difficult to label it as a theoretical camp. The second is the formal linguistics tradition, which seeks to describe speakers' implicit knowledge about the structure of their language. Despite the rising popularity of cognitive-functional linguistics, investigating Korean MNCs from this perspective is still in its early stages. By reviewing representative functionalist approaches to these constructions, we explored how to incorporate their insights to broaden our understanding. We hope our attempt was successful.

References

Bybee, J. L. (2006). *Frequency of use and the organization of language.* Oxford: Oxford University Press.

Bybee, J. L. (2010). *Language, usage, and cognition.* Cambridge: Cambridge University Press.

Chae, H.-R. & Kim, I. (2008). A clausal predicate analysis of Korean multiple nominative constructions. *Korean Journal of Linguistics, 33*(4), 869-900.

Cho, S. & Whitman, J. (2020). *Korean: A linguistic introduction*. Cambridge: Cambridge University Press.

Choe, H. S. (1986). Syntactic adjunction, A-chains, and the ECP. In Joyce McDonouh & Bernadette Plunkett (Eds.), *Proceedings of the 17th Northeast Linguistic Society,* (pp.100-121). GLSA Boston: University of Massachusetts.

Choi, Y. (2016). *A study on the information structure in Korean language.* Ph.D. Dissertation. Seoul National University.

Choi, Y. (2018). Two conceptions of presupposition and its information structure. *Morphology, 20*(1), 140-153.

Choi, Y. (2019). *A Study on the information structure in Korean language.* Seoul: Taehaksa.

Choi, Y. (2020). Is Korean case marker a focus marker?: Focusing on '*i/ga*' and '*ul/lul*'. *Morphology, 22*(2), 334-371.

Choi, Y. (2022). Current issues and future directions of information structure studies from a cross-linguistic perspective-focusing on the corpus-based research. *Journal of Korean Linguistics, 101*, 467-506.

Chun, S.-A. (1985). Possessor ascension for multiple case sentences. In Kuno Susumu (Ed.), *Harvard studies in Korean linguistics I,* (pp.30-39). Cambridge, Boston: Havard University.

Clark, B. (2013). *Relevance theory*. Cambridge: Cambridge University Press.

Croft, W. (1993). The role of domains in the interpretation of metaphors and metonymies. *Cognitive Linguistics, 4*(4), 335-370.

Croft, W. (2001). *Radical construction grammar: Syntactic theory in typological perspective*. Oxford: Oxford University Press.

Dixon, R. M. W. (1994). *Ergativity.* Cambridge: Cambridge University Press.

Falk, Y. N. (2006). *Subjects and universal grammar: An explanatory theory.* Cambridge: Cambridge University Press.

Goldberg, A. E. (1995). *Constructions: A construction grammar approach to argument structure.* Chicago: The University of Chicago Press.

Goldberg, A. E. (2006). *Constructions at work: The nature of generalization in language.* Oxford: Oxford University Press.

Halliday, M. A. K. (1985). *An introduction to functional grammar.* New York: Routledge.

Hong, K.-S. (1991). *Argument selection and case marking in Korean.* Ph.D. Dissertation. Stanford University.

Hong, K.-S. (2014). Multiple case construction in Korean and discourse structure. *Korean Journal of Linguistics, 39*(3), 677-699.

Jang, Y. (1998). Multiple subjects and characterization. *Discourse and Cognition, 5*(1), 99-116.

Kang, Y.-S. (1985). *Korean syntax and universal grammar.* Ph.D. Dissertation. Harvard University.

Keenan, E. (1976). Toward a universal definition of "subject". In Charles Li (Ed.), *Subject and topic,* (pp.305-333). New York: Academic Press.

Kim, I. (2023). Against a topic-comment analysis of so-called double/multiple nominative/subject constructions in Korean. *Korean Journal of Linguistics, 48*(3), 507-535.

Kim, J.-B., Sells, P., & Yang, J. (2007). Parsing two types of multiple nominative constructions: A constructional approach. *Language and Information, 11*, 25-37.

Kim, S. & Maling, J. (1993). Syntactic case and frequency adverbials in Korean. In Susumo Kuno (Ed.), *Harvard studies in Korean linguistics V,* (pp.368-378). Cambridge, Boston: Department of Linguistics, Harvard University.

Kim, Y.-J. (1990). *The syntax and semantics of Korean case: The interaction between lexical and syntactic levels of representation.* Ph.D. Dissertation. Cambridge, Boston: Harvard University.

Kratzer, A. (1986). Severing the external argument from its verb. In Johan

Rooryck & Laurie Zaring (Eds.), *Phrase structure and the lexicon*, (pp.109-137). Dordrecht: Springer.

Kumashiro, T. & Langacker, R. W. (2003). Double-subject and complex predicate constructions. *Cognitive Linguistics, 14*(1), 1-45.

Kuno. S. (1987). *Functional Syntax.* Chicago: The University of Chicago Press.

Langacker, R. W. (1987). *Foundations of cognitive grammar 1: Theoretical prerequisites.* Stanford: Stanford University Press.

Langacker, R. W. (1991). *Foundations of cognitive grammar 2: Descriptive application.* Stanford: Stanford University Press.

Langacker, R. W. (2004). Form, meaning and behavior: The cognitive grammar analysis of double subject constructions. In Ellen Contini-Morava, Robert Kirsner, & Betsy Rodriguez-Bachiller (Eds.), *Cognitive and communicative approaches to linguistic analysis,* (pp.21-60). Amsterdam: John Benjamins.

Langacker, R. W. (2008). *Cognitive grammar: A basic introduction.* Oxford: Oxford University Press.

Langacker, R. W. (2009). *Investigations in cognitive grammar.* Berlin: Mouton de Gruyter.

Lee, E. & Shimojo, M. (2016). Mismatch of topic between Japanese and Korean. *Journal of East Asian Linguistics, 25*, 81-112.

Lee, J. (2021). *Nominative case assignment by phase: A predicate-based approach.* MA Thesis. Seoul National University.

Levin, T. (2017). Successive-cyclic case assignment: Korean nominative-nominative case-stacking. *Natural Language & Linguistic Theory, 35*, 447－498.

Li, C. & Thompson, S. A. (1976). Subjects and topic: A new typology of language. In Charles Li (Ed.), *Subjects and topic,* (pp.457-490). New York: Academic Press.

Na, Y. & Huck, G. J. (1993). On the status of certain island violations in Korean. *Linguistics and Philosophy, 16,* 181-229.

Park, C. (2011). The role of metonymy in the interpretation of Korean multiple subject constructions. *Language Sciences, 33*(1), 206-228.

Park, C. (2019). *Reference point and case: A cognitive grammar exploration of Korean.* Philadelphia: John Benjamins.

Park, C. & Yeon, J. (2023). Information structure in Korean: What's new and what's old. *Journal of Pragmatics, 205,* 16-32.

Ryu, B.-R. (2013). Multiple case marking constructions in Korean revisited. *Language and Information, 17*(2), 1-28.

Schütze, C. T. (2001). On Korean 'case stacking': The varied functions of the particles *ka* and *lul*. *The Linguistic Review, 18*(3), 193-232.

Sperber, D. & Wilson, D. (1986). *Relevance*. Oxford: Blackwell.

Suh, S. (2003). The distribution of multiple subject constructions in Korean. *Language Research, 39*(4), 839-857.

Vermeulen, R. (2005). Possessive and adjunct multiple nominative constructions in Japanese. *Lingua, 115*(10), 1329-1363.

Yoon, J. H. (1986). Some queries concerning the syntax of MNCs in Korean. *Studies in the Linguistic Sciences, 16*, 215-236.

Yoon, J. H. (2004). The independence of grammatical case from interpretive factors. Paper presented at *the 2004 Linguistic Society of Korea International Conference*, Seoul.

Yoon, J. H. (2007). Raising of major arguments in Korean and Japanese. *Natural Language & Linguistic Theory, 25*(3), 615-653.

Yoon, J. H. (2009). The distribution of subject properties in MNCs. In Yukinori Takubo, Tomohide Kinuhata, Szymon Grzelak, & Kayo, Nagai (Eds.), *Japanese/Korean Linguistics 16,* (pp.64-83). Stanford: CSLI Publications.

Yoon, J. H. (2015). Double nominative and double accusative constructions. In Lucien Brown & Jaehoon Yeon (Eds.), *The handbook of Korean linguistics,* (pp.79-97). Wiley Blackwell.

Youn, C. (1990). *A relational analysis of Korean multiple nominative constructions*. Ph.D. Dissertation. University at Buffalo.

Yoon, James Hye Suk
University of Illinois at Urbana-Champaign
707 S. Mathews Ave, Urbana, IL 61801, USA
Phone: +1-217-244-0661
Email: jyoon@illinois.edu

Park, Chongwon
University of Minnesota Duluth
1201 Ordean Court, Duluth, MN 55812, USA
Phone: +1-218-726-7706
Email: cpark2@d.umn.edu

Received on Nov 30, 2024
Revised version received on Dec 11, 2024
Accepted on Dec 27, 2024

언어융합연구소 편집위원회 규정

제1조(목적) 이 규정은 언어융합연구소 편집위원회에 관한 세부사항을 규정함을 목적으로 한다.

제2조(구성)

1. 편집위원회는 지역과 세부 학문 분야를 고려하여 10명 내외로 구성한다.
2. 편집위원장은 소장이 겸임한다.

제3조(구성 절차) 편집위원은 편집위원장이 위촉한다.

제4조(자격)

1. 편집위원은 연구 실적이 지난 5년 동안 1년 평균 100% 이상으로, 국제학회 또는 전국규모의 학회에서 학술 활동이 활발한 학자로서 세부 전공 영역별로 논문을 심사할 수 있는 전문가를 선정함을 원칙으로 한다.
2. 편집위원은 대학 및 이에 준하는 연구기관에 재직 중인 전문가로 전국적인 분포를 고려하여 선정한다.

제5조(임기) 편집위원의 임기는 2년으로 하되, 연임할 수 있다.

제6조(역할)

1. 편집위원회는 학술지 편집과 논문 심사에 관한 각종 사항을 심의한다. 다만, 논문 심사의 절차와 세부 규정은 따로 정한다.
2. 편집위원회는 정기적으로 발행하는 학술지 외의 도서에 대한 기획 및 발간에 대한 제반 사항을 심의한다.
3. 편집위원회는 회의를 거쳐 특집 및 기획주제를 선정할 수 있다.

제7조(회의)

1. 위원장은 매년 2회 학술지 발간에 맞추어 정기적으로 편집회의를 개최하고, 특별한 사유가 있을 경우 위원장은 임시 편집회의를 소집할 수 있다.
2. 위원장은 매년 2회 정기적으로 발행하는 학술지 외의 도서를 기획 및 발간하는 때에도 이에 관련된 제반 사항을 논의하기 위하여 편집회의를

소집할 수 있다.

3. 편집회의는 편집위원장과 편집위원회 과반수의 출석으로 성립되며, 출석 위원 과반수의 찬성으로 의결한다. 단, 인터넷 통신으로도 회의와 의결이 성립될 수 있다.

제8조(특집 및 기획주제 선정)

1. 편집위원회는 정기 편집위원회의에서 다음 호의 특집 및 기획 주제를 선정할 수 있다.
2. 편집위원회는 선정된 특집 및 기획 주제의 필진을 관련 분야에서 활동하는 학자들로 구성하되, 연구 업적 및 학계 기여도를 성실히 참고한다.
3. 특집 및 기획 주제는 전체 호의 1/3을 초과할 수 없다.
4. 편집위원회는 특집 및 기획 주제와 관련된 학술대회 또는 기획주제 발표회 개최를 연구소장에게 건의할 수 있다.
5. 특집 및 기획 주제에 따라 제출된 논문은 『수어학과 언어융합연구』 '논문 심사 규정' 제2조에 의거하여 편집위원회의 주관 아래 별도의 심사 절차를 거치지 않고 게재한다.

부 칙

1. 이 규정은 2024년 1월 1일부터 시행한다.

『수어학과 언어융합연구』 논문 투고 규정

1. 투고 내용

1) 『수어학과 언어융합연구』는 인문사회 분야의 전문 학술지로서, 인문사회 관련 학문의 발전 및 확산에 기여할 수 있는 연구 성과를 게재 대상으로 한다.
2) 연구 논문 외에 학계의 연구 성과를 비판적으로 점검하고 올바른 연구 방향을 모색하는 뜻에서 연구 동향, 서평 등을 수록할 수 있다.
3) 전문적인 학술 연구 작업에 기여할 수 있는 새로운 자료들을 발굴하여 해설과 함께 수록할 수 있다.

2. 투고 자격

1) 투고 자격은 인문사회 분야 석사과정 재학 이상 학력 소지자를 원칙으로 한다.
2) 동일 저자(공저자 포함)는 3회 연속으로 논문을 게재할 수 없다.

3. 발간 일정

1) 『수어학과 언어융합연구』는 1년에 2번 발행한다.
2) 발간일과 원고 마감일은 다음과 같다.
   ① 상반기 발간일은 6월 30일이며, 원고 마감일은 4월 30일이다.
   ② 하반기 발간일은 12월 31일이며, 원고 마감일은 10월 31일이다.

4. 논문의 작성 및 제출

1) 논문은 언어융합연구소 온라인 시스템(lcri@chosun.ac.kr)을 이용해 투고한다.
2) 국내 투고 논문은 '흔글' 프로그램을 사용해 작성한다. 다만, '흔글' 프로그램 사용이 어렵거나, 외국에 체류 중일 때, 영어로 작성하는 논문의 경우 MS Word 등을 사용하여 작성할 수 있다.
3) 투고자는 투고 시에 논문유사도검사를 실시하여 결과를 첨부한다.
4) 논문 투고 시 논문투고신청서와 연구윤리규정 준수 서약서, 저작재산권 양도 확인서 등을 같이 제출한다.
5) 투고 논문의 작성은 다음에 제시하는 논문 작성 기준을 따르며 여기서 규정하지 않은 구체적인 내용에 대해서는 별도로 정한 『수어학과 언어융합연구』 '논문작성 세부지침'을 참고한다.

5. 논문 작성 기준

(아래의 논문 작성 기준 지침을 반드시 숙지해 주시기 바라며, 저널 형식에 부합하지 않는 논문 형식이나 참고문헌 형식으로 작성된 원고는 출판이 거부될 수 있습니다.)

1) 『수어학과 언어융합연구』에 실리는 글의 분량 기준은 다음과 같다.
   ① 투고 논문은 A4 용지 단면으로 15매 내외
   ② 논문 초록은 170 내지 180 단어 이내로 작성한다.
2) 논문의 구성은 다음과 같다.
   ① 논문 제목 (Paper Title)
   ② 저자: 공동연구자도 모두 소속을 명기하여 표기한다.
   ③ 저자의 소속은 저자명 바로 아래에 '(**대학교/** University)'의 형식으로 표시한다.
   ④ 초록: 논문 초록은 170~180 단어 이내로 작성하고, 제목과 저자 정보, 연구 목적, 대상, 방법, 그리고 결론과 성과 등을 쓴다.
   ⑤ 주제어: 초록에 이어서 논문 내에 사용된 중심 어휘를 5-6개 쓴다.

⑥ 차례: 1., 1), (1)의 형식으로, 첫 단계 표기를 원칙으로 한다.
⑦ 본문: 장, 절은 1., 1), (1)로 적고, 본문에서 인용하거나 참고한 문헌의 출처는 본문의 괄호 속에 저자의 이름과 출판연도, 쪽 번호만 밝힌다. 예문의 작은 번호는 a. b. c. 등으로 표기하며, 본문에서 예문을 인용할 때에는 (1a), (1b), (1c) 등과 같이 표기한다.
⑧ 참고 문헌: 인용된 문헌을 적되, 논문은 학술지 수록 쪽수를 표기한다.

3) 참고문헌 표기 원칙
① 참고문헌의 표기 원칙은 다음과 같다.
② 참고문헌은 본문과 구분하여 별지에 작성한다.
③ 문헌 배열 순서는 한글문헌, 동양어 문헌 (일본어, 중국어), 서양문헌 순으로 배열하되, 번역서(예컨대 한글로 번역된 영문서)는 해당 원어 문헌으로 분류한다.
④ 한국어 문헌의 표기 방법은 다음과 같다.
a. 참고문헌 마지막에 마침표를 붙임.
예) 홍길동 (1990).「한국언론」. 서울 : 새나라.
b. 공동저자의 경우 저자 사이에 (,) 넣음.
예) 홍길동, 김막동 (편). (1995).「커뮤니케이션 연구」. 서울 : 새나라. (공편저일 때)
c. 논문의 경우는 게재지에 수록된 쪽수를 표시함.
예) 홍길동 (1991). 한국언론의 새로운 지평 연구. 「한국언론」, 35권 1호, 23~54.
⑤ 영문 등 기타 외국어의 경우 표기 방법은 다음과 같다.
a. 저널의 논문 (Journal article)
저자의 성을 먼저 쓰고 쉼표를 붙인 후 이름을 약자로 쓴다. 한 저자 이름의 약자에 마침표와 쉼표를 찍은 후에 다음 저자의 성을 쓴다. 단, 저자가 두 명일 경우, 첫 번째 저자 이름의 약자에 마침표만 붙이고 "&" 추가한 뒤 두 번째 저자의 성을 쓰고 이름을 약자로 쓴다. 출판연도는 괄호에 넣는다. 논문은 주제목과 부제의 첫 글자와 고유명사만 대문자로 하고 나머지는 소문자로 하며 보통체로 한다. 저널 이름은 영문인 경우 주요 단어의 첫 자를 모두 대문자로 하고 이탤릭체로 한다. volume 번호도 이탤릭체로 하나, issue 번호는 괄호 속에 보통체로 한다. 마지막으로 쪽수를 표시한다.

예1) Yang, J. & Fischer, S. D. (2002.) Expressing negation in Chinese Sign Language. *Sign Language & Linguistics, 5*(2), 167-202.

예2) Kim, J.-B., Sells, P., & Yang, J. (2007). Parsing two types of multiple nominative constructions: A constructional approach. *Language and Information, 11*, 25－37.

b. 학위 논문

학위명을 이탤릭으로 하고, 석사학위 논문인 경우, 'MA Thesis', 박사 학위 논문인 경우 'Ph.D. Dissertation'으로 표기한 후, 마침표를 하고 학위 수여 대학을 표기한다.

예1) Lee, J. (2021). *Nominative case assignment by phase: A predicate-based approach.* MA Thesis. Seoul National University.

예2) Youn, B. C. (2003). *The study on the linguistic characteristics of non-manual signals in Korean Sign Language.* Ph.D. Dissertation. Daegu University.

c. 도서

(1) 도서 및 전자책 (Book & eBook)

저자 표기법은 저널 논문의 경우와 같다. 책 제목은 이탤릭으로 하되, 저널 논문 제목처럼 주 제목과 부제의 첫 글자만 대문자로 표기한다. 판수는 보통체로 표기하며, 예를 들어 "(3rd edition.)" 형태로 작성한다. 도서의 출판지 정보는 도시 이름과 출판사 이름을 명시한다.

예) Hyland, K. (2019). *Metadiscourse: Exploring interaction in writing* (2nd edition.). London: Bloomsbury Academic.

(2) 편집된 책에 실린 논문이나 장 (An article or chapter in an edited book)

편집자의 성명은 저자의 경우와는 달리 이름을 먼저 쓰고 성을 뒤에 쓰며, 약자가 아닌 Full name을 쓴다. 편집된 책 제목이 아닌 해당 논문이나 장의 제목을 이탤릭으로 하고 ',' 붙이고 페이지 수를 기입한다 (pp.**-**). 도서의 출판지 정보는 도시 이름과 출판사 이름을 명시한다.

예) Brdar-Szabó, R. & Brdar, M. (2022). Metonymy in multimodal discourse, or: How metonymies get piggybacked across

modalities by other metonymies and metaphors. In Alexandra Bagasheva, Bozhil Hristov, & Nelly Tincheva (Eds.), *Figurativity and human ecology,* (pp.209-249). Amsterdam: John Benjamins.

(3) 다권본 도서(Multi-Volume Works)

권(volume)을 명시할 경우, 'volume'은 제외하고 숫자만 책 제목 뒤에 표시하며, 이탤릭체로 한다.

예) Hopper, J. (1991). On some principles of grammaticalization. In Elizabeth Traugott & Bernd Heine (Eds.), *Approaches to grammaticalization 1,* (pp.17-35). Amsterdam: John Benjamins.

6. 논문의 발행 및 저작권

1) 편집위원회는 투고된 논문을 편집위원회 규정에 의해 심사하여 게재 여부를 결정하고, 게재 확정된 논문을 학술지『수어학과 언어융합연구』에 게재하여 발행한다.
2) 본 학술지에 투고하는 자는 이 규정에 따라 게재된 논문의 저작권을 조선대학교 언어융합연구소에 양도하여야 한다.
3) 논문 투고자는 논문 투고 시 투고논문과 함께 저작권 활용 동의서(저작재산권 양도 확인서)를 제출하여 본 학술지에 게재되는 논문의 저작권 활용에 동의하여야 하며, 연구윤리서약서, KCI 문헌 유사도 검사 결과 확인서 등도 함께 첨부하여 제출하여야 한다.
4)『수어학과 언어융합연구』에 게재된 논문의 경우, 언어융합연구소 홈페이지를 통한 논문공개, 한국연구재단을 통한 논문 공개 등 논문의 공개 및 출판, 판매 등의 권한과 게재된 논문의 저작권 일체는 언어융합연구소에 귀속된다.

7. 반환

투고한 논문은 게재 여부와 관계없이 반환하지 않는다.

부칙

1. 이 규정은 2024년 1월 1일부터 시행한다.

언어융합연구소 연구 윤리 규정

제1조(목적) 이 규정은 언어융합연구소(이하 본 연구소) 제반 활동의 연구 윤리와 진실성을 확보하는 데 필요한 기본적인 원칙과 방향을 제시함을 목적으로 한다.

제2조(적용 범위) 이 규정은 본 연구소와 관련된 연구자 및 본 연구소가 주관하는 연구 활동 및 사업과 직간접으로 관련 있는 자에 대하여 적용한다.

제3조(연구자의 의무) 본 연구소와 관련된 연구자 및 본 연구소가 주관하는 연구 활동 및 사업에 관련된 연구자는 연구자로서의 규범을 준수하고, 학술 연구를 통하여 학문과 사회 발전을 도모하며, 연구자로서 지켜야 할 의무를 성실하게 이행해야 한다.

제4조(윤리 규정 위반의 보고) 본 연구소와 관련된 연구자는 다른 연구자의 윤리 규정 위반 사실을 인지할 경우 해당 연구자에게 윤리 규정을 환기시킴으로써 문제를 바로잡도록 노력해야 한다. 그러나 문제가 바로잡히지 않거나 명백한 윤리 규정 위반 사례가 드러날 경우에는 본 연구소 '연구윤리위원회'에 보고한다.

제5조(연구윤리위원회)

1. 본 연구소와 관련된 연구자의 규범 준수와 성실 의무를 심사하기 위하여 본 연구소 내에 연구윤리위원회(이하 위원회)를 설치한다.
2. 위원회는 연구윤리 수립 및 운영에 관한 제반사항을 심의·결정한다.

6조(위원회의 구성) 위원회는 편집위원장을 포함한 편집위원으로 구성하되, 위원장은 편집위원장이 겸한다.

제7조(위원회의 임무) 위원회는 연구부정행위를 판정하고 연구부정행위자에 대한 제재사항을 결정한다.

제8조(윤리 위반 사례) 다음 각 호의 사항에 해당되는 경우를 연구 윤리 위반으로 본다.

1. 위조
   존재하지 않는 연구의 원자료 또는 연구자료와 결과 등을 허위로 조작, 기록 또는 보고하는 행위
2. 변조
   연구 원자료 또는 연구자료와 등을 임의로 변형·삭제함으로써 연구 내용 또는 결과를 왜곡하는 행위
3. 표절
   일반적 지식이 아닌 타인의 독창적인 아이디어 또는 창작물을 적절한 출처 표시 없이 활용함으로써, 제3자에게 자신의 창작물인 것처럼 인식하게 하는 것으로 다음 각 목에 해당하는 행위
   가. 타인의 연구 내용 전부 또는 일부를 출처 표시 없이 그대로 사용한 경우
   나. 타인의 저작물을 일부 변형하여 사용하면서 출처 표시를 하지 않은 경우
   다. 타인의 독창적인 생각 출처 표시 없이 그대로 활용하는 경우
   라. 타인의 저작물을 번역하여 활용하면서 출처 표시를 하지 않은 경우
4. 부당한 저자 표시
   연구 결과 또는 내용에 대하여 학문적으로 공헌 또는 기여를 한 사람에게 정당한 이유 없이 논문 저자 자격을 부여하지 않거나, 학문적으로 공헌 또는 기여를 하지 않은 사람에게 감사나 예우 등을 이유로 논문 저자 자격을 부여하는 행위
5. 부당한 중복게재
   연구자가 자신의 이전 연구 결과와 동일 또는 실질적으로 유사한 저작물을 출처 표시 없이 게재하여 부당한 이익을 얻는 행위

제9조(심사 절차) 위반 행위에 대한 심사는 위원회에서 정한 바를 따른다.

제10조(심사 결과) 위원회는 다음 각 호의 사항을 반드시 포함하여 심사결과를 서류로 보관한다.

1. 심사의 위촉 내용
2. 심사의 대상이 된 부정 행위
3. 심사위원의 명단 및 심사 절차
4. 심사 결정의 근거 및 관련 증거

5. 심사 대상 회원의 소명 및 처리 절차

제11조(징계) 위원회는 심사 및 면담 조사를 종료한 후 징계의 내용을 결정한다. 징계의 종류는 위원회 규정에서 정한 바를 따른다.

제12조(후속 조치) 소장은 위원회에서 작성한 보고서를 검토한 후 다음과 같은 조치를 취한다.

1. 소장은 위원회의 결정을 즉시 시행한다.
2. 심사결과가 합리성과 타당성에 문제가 있다고 판정할 경우, 소장은 위원회에 재심, 또는 보고서의 보완을 요구할 수 있다.

제13조(기타)

1. 이 규정에 명시되지 않은 것은 위원회의 결정에 따라 시행한다.
2. 연구 윤리 규정의 수정은 본 연구소 회칙 개정 절차에 준하여 시행한다.
3. 간사는 위원회의 회의 내용을 반드시 문서로 작성하여 보관한다.

부칙

1. 이 규정은 2024년 1월 1일부터 시행한다.

수어학과 언어융합연구(조선대학교 언어융합연구소 학술지, 연 2회 간행)

조선대학교 언어융합연구소
61452 광주광역시 동구 조선대길 146, 언어융합연구소
전화: 062-230-6568 이메일: lcri@chosun.ac.kr
홈페이지 https://lcri.chosun.ac.kr

편집위원회 연락처
61452 광주광역시 동구 조선대길 146, 언어융합연구소
전화: 062-230-6568 이메일: lcri@chosun.ac.kr

편집위원회
편집위원장 최영주(조선대학교)
편 집 위 원 권순복(부산대학교)
장세은(한국해양대학교)
조진우(전북대학교)
조참훈(중국서남대학교)
황보현진(부경대학교)
Sherman Wilcox(New Mexico University)
Wendy Sandler(Haifa University)
Mario Brdar(Josip JurajStrossmayer University of Osijek)
Rita Brdar-Szabó (Eötvös Loránd University)

수어학과 언어융합연구 1권 2호

발행일 2024년 12월 30일 발행 발행처 조선대학교 언어융합연구소 ISSN 3058-2644
발행인 최영주 인 쇄 조선대학교 E-Learning지원팀

수어학과 언어융합연구
제1권 제2호, 2024년 12월
조선대학교 언어융합연구소 학술지, 연 2회 간행

CONTENTS

신홍임 워드 클라우드 기법을 이용한 청인 대학생의 한국 수어에 대한 진정성 인식과 학습효과

임수진 문제 해결 과정의 수어 표현과 인지 기제

임지룡 북한 『손말사전』의 성격과 특성

Ahmad, Mai
Kwon, Soon-Bok
Deontic and Epistemic Modality in Korean Sign Language

Brdar-Szabó, Rita
Brdar, Mario
Blending in Spoken/Written Languages and in Sign Languages

Jeon, Haewon
A Bibliometric Analysis of Themes and Network Structures in Sign Language Policy

Jo, Charmhun
Park, Yubin
Conceptual Metaphor and Double Mapping in Chinese Sign Language

Lee, Sunghwa
Jhang, Se-Eun
A Global Bibliometric Analysis of Sign Language Research: Trends and Technological Evolution

Rhee, Seongha
Analogy-Driven Grammaticalization across Categories: The Case of 'Exactness' in Korean

Yoon, James Hye Suk
Park, Chong won
When Formalism Meets Functionalism: An Overview of Korean Multiple Nominative Constructions

Sign Languages and Linguistics Convergence Research
Volume 1, Numer 2, December 2024

Language Convergence Research Institute
ISSN 3058-2644