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## The Time Depth and Typology of Rural Sign Languages

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# The Time Depth and Typology of Rural Sign Languages

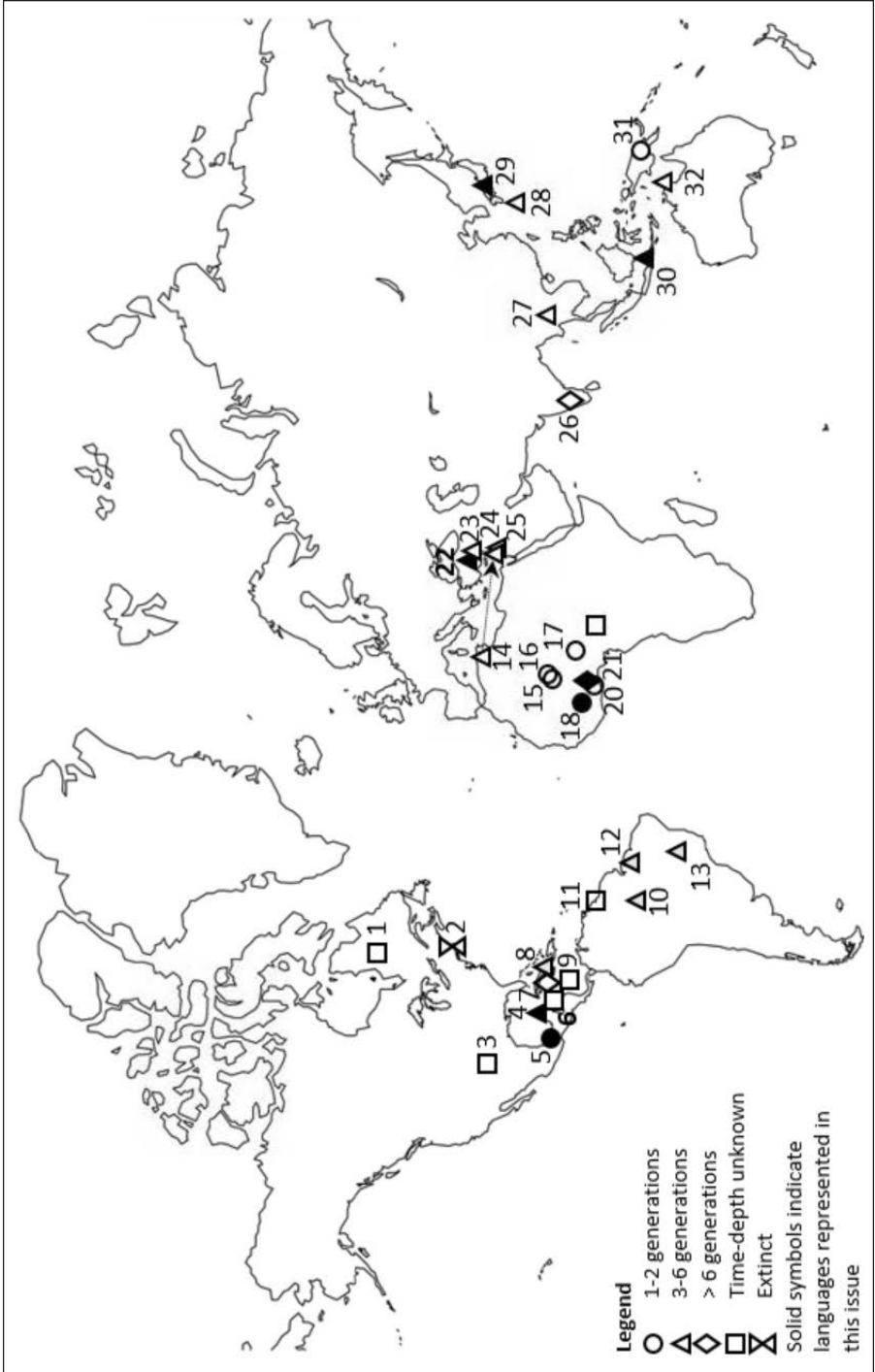
Irit Meir sadly passed away right after the issue was accepted for publication. We wish to honor her for her immense contribution to the field of sign language linguistics, including the study of emerging sign languages, by dedicating this issue to her.

THIS SPECIAL ISSUE of *Sign Language Studies* is focused on recent developments in the study of rural sign languages, which have arisen from the spontaneous interactions between deaf and hearing individuals in rural communities with high incidences of deafness. With the exception of a few preliminary studies, such as the one on the now-extinct Martha's Vineyard community (Groce 1985) and the work on Providence Island Sign Language (e.g. Washabaugh, Woodward, and DeSantis 1978), the linguistic documentation and description of these sign languages did not really take off until the early 2000s (de Vos and Pfau 2015). Importantly, rural sign languages are only one part of the linguistic landscape, which includes the urban sign languages of national deaf communities whether they have emerged recently, as happened in the case of Nicaragua (Senghas and Coppola 2001), or are in fact presumed to have a long-standing history (Zeshan and Palfreyman 2017).

In figure 1, we provide a comprehensive overview of all rural sign languages for which we could currently identify linguistic sources, including the ones that are discussed in the current issue. The map

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|--|---|--|--|
| 1. Inuit SL (Schuit 2012)                                      | 9. Providence Island SL (Washabaugh 1986)       | 16. Berbey SL (Nyst et al. 2012)               | 25. Al-Sayyid Bedouin SL (Sandler et al. 2005)     |
| 2. Martha's Vineyard SL (Groce 1985)                           | 10. South Rupununi SL (Braithwaite forthcoming) | 17. Bura SL (Blench and Warren 2006)           | 26. Alipur SL (Panda 2012)                         |
| 3. Keresan Pueblo SL (Kelley and McGregor 2003)                | 11. Kajana SL (van den Bogaerde 2005)           | 18. Bouakako SL (Tano 2016)                    | 27. Ban Khor SL (Nonaka 2014)                      |
| 4. Yucatec Mayan SL (Escobedo Delgado 2012; Safar et al. 2018) | 12. Urubu Kaapor SL (Ferreira-Brito 1984)       | 19. Extreme North Cameroon SL (De Clerck 2011) | 28. Amami Oshima SL (Osugi et al. 1999)            |
| 5. Chatino SL (Hou 2016)                                       | 13. Maxakali SL (Stoianov and Nevins 2017)      | 20. Nanabin SL (Nyst 2010)                     | 29. Miyakubo SL (Yano & Matsuoka 2018)             |
| 6. French Harbour SL (Braithwaite forthcoming)                 | 14. Ghardaia SL (Lanesman and Meir 2012)        | 21. Adamorobe SL (Nyst 2007)                   | 30. Kata Kolok (deVos 2012)                        |
| 7. Old Cayman SL (Washabaugh and Woodward 1979)                | 15. Douentza SLs (Nyst et al. 2012)             | 22. Central Taurus SL (Ergin 2017)             | 31. Enga SL (Kendon 1980)                          |
| 8. Konchri Sain (Cumberbatch 2012)                             |   | 23. Mardin SL (Dikyuya 2012)                   | 32. Yolngu SL (Maypula and Adone 2012; Bauer 2014) |
|  |   | 24. Kafr Qasem SL (Kasmer et al. 2014)         |  |

FIGURE 1. Rural sign languages currently attested in the linguistic literature.

differentiates between communities that constitute only one to two generations of deaf signers, communities that have had at least three generations of deaf signers, ones that are older than six generations, and rural sign languages that no longer exist. Sign languages for which no information about time depth is available are also distinguished as such. All in all, we have identified thirty-two rural sign languages at present. Sign languages that are represented in this issue are marked with solid symbols.

### The Time Depth and Typology of Rural Sign Languages

Compared to spoken languages, all sign languages are considered relatively young. Therefore, each and every sign language, at whichever stage of development it is, contributes a unique piece to the puzzle as to how sign languages emerge (Meir et al. 2010). The studies presented in this issue each contribute to our understanding of what these emergent signing varieties look like. On a par with urban sign languages, rural signing varieties are thought to be grafted upon a preexisting gestural repertoire used by hearing community members, but little is known about such initial stages from gesture to language. What is more, the few detailed linguistic descriptions of rural sign languages have made clear that they may rapidly develop distinct typological features that were previously unattested (e.g., Zeshan et al. 2013; de Vos and Pfau 2015).

### Articles in This Issue

The typology of rural sign languages is still in its infancy, but with each new data point we gain, it becomes clearer how much they have to add to our understanding of linguistic diversity in the visual-gestural language modality. Yano and Matsuoka provide an initial sketch of Miyakubo Sign Language, and find that this rural sign language uniquely combines a celestial timeline, which is linked to the absolute location of the sun, with a deictic timeline that places the past at the signer's right, but does not include a spatial representation of the future. Lutzenberger is the first to identify the use of fully nonmanual name signs in Kata Kolok. Further comparisons to urban sign languages reveal crosslinguistically robust properties of name sign phonology, specifically the predominance of the head location

and one-handedness. In the case of San Juan Quiahije Chatino Sign Language, Hou demonstrates that considerable formational variation exists among signers, and iconic prototypes are shared among the families. This suggests that variation studies should cover both the phonological and the iconic level.

This issue also explores the view that during emergence, the morphosyntactic complexity of a sign language increases (Sandler et al. 2005). Tano and Nyst demonstrate a gradual grammatical integration of size and shape specifiers when comparing the cospeech gestures of Anyi speakers to the first generation of Bouakako Sign Language, and to Adamorobe Sign Language, which is much older. Safar et al. consider the different numerals of Yucatec Maya Sign Languages and show that while the first-generation signers of the Nokhop and the Cepeda Peraza signing varieties solely adopt a digital strategy, the third generation of Chicán signers has several numeral strategies including, for example, nonmanual modifications to indicate hundreds and thousands.

As pointed out by Ergin and colleagues, however, the timeframe and trajectory along which sign languages accrue structure cannot be predicted beforehand. Specifically, they show that Central Taurus Sign Language does not disambiguate core arguments on the basis of word order, but rather capitalizes on subsequent single argument constructions combined with character assignment, a strategy first adopted by its second cohort (cf. Sandler et al. 2005 on Al-Sayyid Bedouin Sign Language). Interestingly, the third cohort of signers, who are also fluent in Turkish Sign Language, have developed spatial verb agreement strategies, pointing to a role for sign language contact in the development of rural sign languages.

### Future Research

Many rural sign languages have emerged spontaneously in response to a local rise in the incidence of deafness. As such, they can be qualified as linguistic isolates. Notably however, as is the case in any sign language, rural sign languages incorporate the conventional gestures and gestural strategies of the wider hearing community in which they emerge (e.g., Le Guen 2012). These gestural origins may lead to areal effects in the structure of the sign language(s) emerging in that

culture (cf. Nyst 2016). This calls for systematic documentation and description of the gestural environments of emerging sign languages.

One particular challenge in the description of rural sign languages is the high degree of within-community variation reported for these sign languages across generations, across families, and between deaf and hearing signers. Qualitative analyses of variation shed light on the processes that lead to the patterns of linguistic dissemination observed, as well as the sources of conventionalization. This requires detailed metadata on the signers in the community and their social network. Additionally, quantitative analyses are necessary to better understand the clustering of variation (e.g., across families; Tano 2016). Such quantified variation data allow solid comparisons of variation across sign languages, including the sign languages used in larger urban signing communities.

An issue in the years to come is an understanding of when a sign language should still be considered “emerging” and when the rate of change has reduced to the levels expected of normal language change. This is particularly the case for sign languages such as Kata Kolok, which is currently in its sixth generation, and thus has a similar time depth to many urban sign languages. A related issue is the question to what extent formal features recurring in rural sign languages, such as a relatively small set of phonemic handshapes or a large signing space, are indicative of their emerging status or rather representative of typological variation among sign languages more generally. That is to say, some spoken languages are also known to have small phoneme inventories regardless of a longstanding history (Maddieson 2013). For this reason, comparisons with older rural sign languages such as Adamorobe Sign Language are particularly informative in determining whether time depth is indeed a decisive factor in the development of linguistic characteristics (Nyst 2007).

Another important challenge for the field is to disentangle which linguistic characteristics of rural sign languages have been shaped by the specific circumstances in which they have emerged (de Vos and Pfau 2015). Such factors include not just time depth, but also the lack of formal education in any written language, overall community size, the sheer numbers of hearing second language learners who have adopted the local sign language, the causes, types, and incidences of

hearing loss, as well as the level of geographical dispersion (de Vos and Zeshan 2012; Nyst 2012). It is also possible that some aspects of the linguistic structure are more easily affected by these social factors than others. For example, it is likely that education affects certain types of sign formation (i.e., initialization) and the levels of lexicalization more generally, but it is less clear how education would favor a particular type of negation pattern (cf. Meir et al. 2010; de Vos 2011).

A recent innovation to further disentangle each of these factors has been to adopt models of computational agents to mimic the social dynamics of various sign language community types, allowing for experimental control as to how each parameter contributes to the sustained use of the sign language by hearing community members (de Vos, Roberts, and Thompson 2016). We expect that a combination of further linguistic documentation, including a detailed understanding of the interaction patterns within these communities, and methodological innovations such as the use of computational modelling will contribute considerably to our understanding of language emergence and change, whether in the case of rural sign languages, sign languages in general, or human language overall.

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### References

- Bauer, A. 2014. *The Use of Signing Space in a Shared Sign Language of Australia*. Berlin: Walter de Gruyter.
- Blench, R., and A. Warren. 2006. An Unreported African Sign Language for the Deaf among the Bura in Northeast Nigeria. Unpublished online paper. Cambridge, UK. [https://www.researchgate.net/profile/Roger\\_Blench/publication/228366594\\_An\\_unreported\\_African\\_Sign\\_Language\\_for\\_the\\_Deaf\\_among\\_the\\_Bura\\_in\\_Northeast\\_Nigeria/links/54ad02b90cf23c69a2b85f7b/An-unreported-African-Sign-Language-for-the-Deaf-among-the-Bura-in-Northeast-Nigeria.pdf](https://www.researchgate.net/profile/Roger_Blench/publication/228366594_An_unreported_African_Sign_Language_for_the_Deaf_among_the_Bura_in_Northeast_Nigeria/links/54ad02b90cf23c69a2b85f7b/An-unreported-African-Sign-Language-for-the-Deaf-among-the-Bura-in-Northeast-Nigeria.pdf).
- Braithwaite, B. Forthcoming. Emerging Sign Languages in the Caribbean. In *Emerging Sign Languages of the Americas*, ed. O. Le Guen, J. Safar, and M. Coppola. Berlin: Mouton de Gruyter.



- Cumberbatch, K. 2012. Sociolinguistic Sketch of Konchri Sain. In *Sign Languages in Village Communities: Anthropological and Linguistic Insights*, ed. U. Zeshan and C. de Vos, 387–88. Berlin: Mouton de Gruyter.
- De Clerck, G. A. 2011. Fostering Deaf People's Empowerment: The Cameroonian Deaf Community and Epistemological Equity. *Third World Quarterly* 32(8): 1419–35.
- De Vos, C. 2011. Kata Kolok Color Terms and the Emergence of Lexical Signs in Rural Signing Communities. *The Senses and Society* 6(1): 68–76.
- . 2012. Sign-Spatiality in Kata Kolok: How a Village Sign Language of Bali Inscribes Its Signing Space. PhD diss., Max Planck Institute for Psycholinguistics, Nijmegen.
- , and R. Pfau. 2015. Sign Language Typology: The Contribution of Rural Sign Languages. *Annual Review of Linguistics* 1(1): 265–88.
- , S. G. Roberts, and B. Thompson. 2016. Modelling the Social Dynamics that Lead to the Emergence of Shared Sign Languages. Poster presented at the 12th International Conference on Theoretical Issues in Sign Language Research (TISLR12), Melbourne, Australia.
- , and U. Zeshan. 2012. Introduction: Demographic, Sociocultural, and Linguistic Variation across Rural Signing Communities. In *Sign Languages in Village Communities: Anthropological and Linguistic Insights*, ed. U. Zeshan and C. de Vos, 2–23. Berlin: Mouton de Gruyter.
- Dikyuva, H. 2012. Mardin Sign Language: Signing in a Deaf Family. In *Sign Languages in Village Communities: Anthropological and Linguistic Insights*, ed. U. Zeshan and C. de Vos, 395–400. Berlin: Mouton de Gruyter.
- Ergin, R. 2017. *Central Taurus Sign Language: A Unique Vantage Point into Language Emergence*. Ann Arbor, MI: ProQuest Publishing LLC.
- , I. Meir, D. Ilkbaşaran, C. Padden, and R. Jackendoff. 2018. The Development of Argument Structure in Central Taurus Sign Language. *Sign Language Studies* (this issue).
- Escobedo Delgado, E. 2012. Chican Sign Language. In *Sign Languages in Village Communities: Anthropological and Linguistic Insights*, ed. U. Zeshan and C. de Vos, 277–380. Berlin: Mouton de Gruyter.
- Ferreira-Brito, L. 1984. Similarities and Differences in Two Brazilian Sign Languages. *Sign Language Studies* 42: 45–56.
- Groce, N. E. 1985. *Everyone Here Spoke Sign Language*. Cambridge, MA: Harvard University Press.
- Hou, Lynn Y-S. 2016. Making Hands: Family Sign Languages in the San Juan Quiahije Community. PhD diss., The University of Texas at Austin.
- . 2018. Iconic Patterns in San Juan Quiahije Chatino Sign Language. *Sign Language Studies* (this issue).
- Kasmer, I., I. Meir, W. Sandler, and S. Dachkovsky. 2014. The Emergence of Embedded Structure: Insights from Kafr Qasem Sign Language. *Front Psychology* 5: 525.

- Kelley, W., and T. McGregor. 2003. Keresan Pueblo Indian Sign Language. In *Nurturing Native Languages*, ed. J. Reyhner, O. Trujillo., R. Carrasco, and L. Lockard, 141–48. Flagstaff: Northern Arizona University Press.
- Kendon, A. 1980. A Description of a Deaf-Mute Sign Language from the Enga Province of Papua New Guinea with Some Comparative Discussion. Part I: The Formational Properties of Enga Signs. *Semiotica* 32: 1–34.
- Lanesman, S., and I. Meir. 2012. The Survival of Algerian Jewish Sign Language alongside Israeli Sign Language in Israel. In *Sign Languages in Village Communities: Anthropological and Linguistic Insights*, ed. U. Zeshan and C. de Vos, 153–80. Berlin: Mouton de Gruyter.
- Le Guen, O. 2012. An Exploration in the Domain of Time: From Yucatec Maya Time Gestures to Yucatec Maya Sign Language Time Signs. In *Sign Languages in Village Communities: Anthropological and Linguistic Insights*, ed. U. Zeshan and C. de Vos, 209–50. Berlin: Mouton de Gruyter.
- Lutzenberger, H. 2018. Manual and Nonmanual Features of Name Signs in Kata Kolok and Sign Language of the Netherlands. *Sign Language Studies* (this issue).
- Maddieson, I. 2013. Consonant Inventories. In *The World Atlas of Language Structures Online*, ed. M. Dryer and M. Haspelmath, Chapter 1. Leipzig: Max Planck Institute for Evolutionary Anthropology. Accessed January 23, 2018. <http://wals.info/chapter/1>.
- Marsaja, I. G. 2008. *Desa Kolok: A Deaf Village and Its Sign Language in Bali, Indonesia*. Nijmegen: Ishara Press.
- Maypila, E., and D. Adone. 2012. Yolngu Sign Language: A Sociolinguistic Profile. In *Sign Languages in Village Communities: Anthropological and Linguistic Insights*, ed. U. Zeshan and C. de Vos, 401–4. Berlin: Mouton de Gruyter.
- Meir, I., W. Sandler, C. Padden, and M. Aronoff. 2010. Emerging Sign Languages. In *Oxford Handbook of Deaf Studies, Language, and Education*, ed. M. Marschark and P. Spencer, 267–80. Oxford: Oxford University Press.
- Nonaka, A. 2004. The Forgotten Endangered Languages: Lessons on the Importance of Remembering from Thailand's Ban Khor Sign Language. *Language in Society* 33(5): 737–67.
- Nyst V. 2007. *A Descriptive Analysis of Adamorobe Sign Language (Ghana)*. Utrecht: LOT.
- . 2010. Sign Languages in West Africa. In *Sign Languages - A Cambridge Language Survey*, ed. D. Brentari, 405–32. Cambridge: Cambridge University Press.
- . 2012. Shared Sign Languages. In *Sign Language: An International Handbook*, ed. R. Pfau, M. Steinbach, and B. Woll, 552–74. Berlin: Mouton de Gruyter.

- . 2016. The Depiction of Size and Shape in Gestures Accompanying Object Descriptions in Anyi (Côte d'Ivoire) and in Dutch (The Netherlands). *Gesture* 15(2): 156–91.
- , M. Magassouba, and K. Sylla. 2012. Deaf Signers in Douentza, a Rural Area in Mali. In *Sign Languages in Village Communities: Anthropological and Linguistic Insights*, ed. U. Zeshan and C. de Vos, 251–76. Berlin: Mouton de Gruyter.
- Osugi, Y., T. Supalla, and R. Webb. 1999. The Use of Word Elicitation to Identify Distinctive Gestural Systems on Amami Island. *Sign Language and Linguistics* 2: 87–112.
- Panda, S. 2012. Alipur and Its Sign Language: A Sociolinguistic Sketch. In *Sign Languages in Village Communities: Anthropological and Linguistic Insights*, ed. U. Zeshan and C. de Vos, 353–60. Berlin: Mouton de Gruyter.
- Safar, J., O. Le Guen, G. Collí Collí, and M. Collí Hau. 2018. Numeral Variation in Yucatec Maya Sign Languages. *Sign Language Studies* (this issue).
- Sandler, W., I. Meir, C. Padden, and M. Aronoff. 2005. The Emergence of Grammar: Systematic Structure in a New Language. *Proceedings of the National Academy of Sciences of the United States of America* 102(7): 2661–65.
- Schuit, J. 2012. Signing in the Arctic: External Influences on Inuit Sign Language. In *Sign Languages in Village Communities: Anthropological and Linguistic Insights*, ed. U. Zeshan and C. de Vos, 181–208. Berlin: Mouton de Gruyter.
- Senghas, A., and M. Coppola. 2001. Children Creating Language: How Nicaraguan Sign Language Acquired a Spatial Grammar. *Psychological Science* 12(4): 323–28.
- Stoianov, D., and A. Nevins. 2017. The Phonology of Handshape Distribution in Maxakalí Sign. In *Sonic Signatures: Studies Dedicated to John Harris*, ed. G. Lindsey and A. Nevins, 232–62. Amsterdam: John Benjamins.
- Tano, A. J-J. 2016. *Etude d'une langue des signes émergente de Côte d'Ivoire: l'exemple de la Langue des Signes de Bouakako (LaSiBo)*. Utrecht: LOT.
- , and V. Nyst. 2018. Comparing Body Part Size and Shape Constructions in Village Sign Languages with Cospeech Gesture. *Sign Language Studies* (this issue).
- van den Bogaerde, B. 2005. Everybody Signs in Kosindo Too . . . ? *Deaf Worlds, International Journal of Deaf Studies* 21(1): 103–7.
- Washabaugh, W. 1986. *Five Fingers for Survival*. Ann Arbor, MI: Karoma Publishers.
- , and J. Woodward. 1979. The Deaf of Grand Cayman, The British West Indies. *Sign Language Studies* 31: 117–33.
- , J. C. Woodward, and S. DeSantis. 1978. Providence Island Sign: A Context-Dependent Language. *Anthropological Linguistics* 20(3): 95–109.

- Yano, U., and K. Matsuoka. 2018. Numerals and Timelines of a Shared Sign Language in Japan: Miyakubo Sign Language on Ehime-Oshima Island. *Sign Language Studies* (this issue).
- Ulrike, Z., C. Escobedo Delgado, H. Dikyuva, S. Panda and C. de Vos. 2013. Cardinal numerals in rural sign languages: Approaching cross-modal typology. *Linguistic Typology* 17(3): 357-396.
- Zeshan, U., and N. Palfreyman. 2017. Sign Language Typology. In *The Cambridge Handbook of Linguistic Typology*, ed. A. Y. Aikhenvald and R. M. W. Dixon, 178-216 Cambridge: Cambridge University Press.