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Constraint Interaction in the Phonology and Morphology of Casablanca Moroccan Arabic

A dissertation submitted in fulfillment of the requirement for the degree of “Doctorat d’Etat”

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Acknowledgements

I would like to express my gratitude to my supervisors Professor Abderrafi Benhallam and Professor Elisabeth Selkirk for their constant encouragement and guidance in the preparation of this dissertation. Professor Benhallam ought to be praised for both his human and academic qualities. I have learnt a great deal from him about social life and phonology over the last 15 years. I am particularly indebted to him for having encouraged me to persevere in my 1993 third cycle thesis at a moment I was about to give it up. Professor Selkirk has given me the chance to pursue study and research at the University of Massachusetts at Amherst by accepting to act as co-supervisor of this dissertation. In addition to that, she has contributed substantially to improve this work by her challenging questions, sound criticism and insightful comments and suggestions, leading to major revisions.

Special thanks go to the staff, faculty and graduate students in the Linguistics Department of the University of Massachusetts at Amherst for hosting me in their department for 12 months and also for providing a wonderful research environment while I was writing parts of this dissertation. I have benefited a great deal from the 1997 Fall Semester classes of Professor John McCarthy and also from his comments on some earlier chapters herein contained and those of some graduate students, namely Paul de Lacy, Steve Parker and John Alderete. For all of that, I would like to thank them all. Thanks are also due to John Kingston for helping out with laboratory work and to two other linguists outside the University of Massachusetts, namely Michael Kenstowicz and Mohamed Guerssel who have read and commented on the second chapter of this dissertation.

I am gratefully indebted to a number of other linguists for having contributed to make this a better dissertation than it would otherwise have been. I wish to thank all the members of the Phonology-Morphology Research Group based at the Faculty of Letters in Rabat for their insightful discussion and challenging questions which have certainly helped sharpen my arguments and improve the content of this dissertation. In particular, I would like to thank Samira Rguibi, Karim Bensoukas, Abdellatif Al Ghadi, Said Imouzaz, and Abdelouahed Hammari. This
work could not have been completed without precious help from Mohamed Es-Safi and Mourad Mawhoub. The first allowed me to conduct the quantitative test about stress by hosting me at the Faculty of Letters I in Casablanca and inviting his students to complete the questionnaire related to that test. The second helped me pitch-track the recordings obtained from the subjects and showed great patience during the long hours we spent in front of his computer doing this task.

I am also grateful to all the members of the Moroccan-American Commission for Educational and Cultural Exchange for having awarded me a grant which enabled me to do research for three periods of four months each at the University of Massachusetts at Amherst during the Fall Semesters of the years 1997, 1998 and 1999.

I would also like to thank my friends, especially Mustapha Chebbak, Mohamed Saki, Kamal Alaoui-Fatine, Abdelouahed Safadi, Mustapha Minoual, Driss Maskine, Brahim Taoukoul, Abdelkrim Mabchour, Mohamed-Sghir Syad, Mohamed Rakii and those whose names I cannot recall right now. Additional thanks, for service above and beyond duty, are due to Brahim, Abdelkrim, Mohamed-Sghir and Mohamed who have accepted voluntarily to help with their proofreading skills.

Thanks to all my colleagues at the Faculty of Letters in Beni-Mellal who have contributed in a way or another in this dissertation, namely Noureddine Bourima, Cherkki Karkaba, Khalid Chaouch, Mustapha Mamaoui, Mohamed Taki, Said Bennis and Rachid Hamdi. Also, I should not forget to thank my former professors at the Faculty of Letters I in Casablanca and the Faculty of Letters in Rabat, for without them I would not have reached this stage.

Finally, I wish to thank all the members of my family for their encouragement, moral and emotional support while I was finalizing this work. To my mother Fatna, to my sisters Keltoum, Jamila and Malika, and to my brothers Mohamed and Saïd I say thank you for loving me.
Dedication

To The Memory of My Father …
Abstract of the Dissertation

The objective of this dissertation is to account for some aspects of the prosodic phonology and morphology of Casablanca Moroccan Arabic within the framework of Optimality Theory as conceived in Prince and Smolensky (1993) and McCarthy and Prince (1993a) and developed in the Correspondence model of McCarthy and Prince (1995, 1999) and other related works. It is argued that prosodic aspects such as the syllable structure and the stress system and morphological aspects such as the nisba adjective, the causative, the passive participle and the diminutive are better understood as cases involving interaction between two types of conflicting universal constraints: markedness constraints and faithfulness constraints.

It is shown that a division must be established between two types of syllables: a major syllable whose nucleus is one a schwa or one of the full vowels [i, u, a], and a minor syllable which consists solely of a moraic consonant. Granting a moraic status to this consonant is allowed for the purpose of achieving the foot binarity requiring, especially in nonderived trisegmental words on the pattern CCV, CCəC or CəCC, where the first consonant of the initial cluster and the second consonant of the final cluster form minor syllables on their own. The fact that the schwa is epenthesized before the final consonant of nonderived trisegmental verbs, adjectives and a class of nouns follows from the requirement that the right edge of the stem be aligned with a prominent syllable, which corresponds to a major syllable. The nominal class showing the CəCC pattern is shown to abide by markedness constraints favoring schwa syllables with a higher sonority coda. The dissertation also offers an adequate analysis of the problematic cases of cyclic schwa syllabification in terms of a subset of output-output constraints, one of which demanding phonological identity between a derived form and its morphologically-related base form.

The theoretical framework herein conceptualized gives a straightforward answer to the puzzling stress system of the language which shows both trochaic and iambic feet. In particular, it is argued that in both isolation words, where the foot is trochaic and context words, where the foot is iambic, the location of stress and consequently the foot types that emerge depend on the hierarchical organization of prosodic words into phonological phrases. A unitary account of the stress system is offered to the effect that both trochaic and iambic feet occur in the language. Trochaic feet surface as optimal when the word is in isolation (i.e. when it is a phonological phrase); iambic feet arise when the word is in context.

The dissertation also argues that morphological classes such as the causative, the passive participle and the diminutive are governed by a prosodic constraint requiring that their output conform to an iambic foot. The causative form, which has previously been analyzed as involving prosodic circumscription, is now reanalyzed as a case of partial reduplication which can be accounted for by constraints demanding correspondence between the base and its reduplicant. In particular it is shown that the constraint calling for an iamb consisting of a sequence of two light syllables takes priority over the constraint on the base and reduplicant identity and therefore block total reduplication. The passive participle and the diminutive are two instances that resort to augmentation to achieve an iambic foot type. In the case of the passive participle, it is argued that the prefinal vowel that appears in certain classes of non derived verbs is the result of the constraint requiring that the output conform to an iambic foot consisting of a sequence of light
and heavy syllables. In case where augmentation would lead to the violation of higher ranked constraints, the foot that emerges as optimal consists of a sequence of two light syllables. In the case of the diminutive, if augmentation applies, it is for the sole purpose of achieving a light-light foot. Augmentation itself takes two different forms: either by the addition of schwa syllables to words that are masculine, or by the suffixation of the feminine morpheme to words which are inherently feminine.
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