Preface

Finding the right words... it is especially hard when one writes his or her first (and usually only) doctoral thesis. Finding the right topic might be even harder.

Originally, the goal was to write a dissertation on finite-state implementations of Optimality Theory (OT), possibly with some aspects on learning in OT. The noteworthy results of this research line can be found in Biró (2003) and in Biró (2005c), besides a few unpublished papers or research reports.

Meanwhile, I remembered that I had written a seminar paper in phonology (Biró, 1997) many years earlier to Péter Rebrus, the first person who introduced me to OT, in which I proposed to combine OT with simulated annealing, a technique I had learned about in a course on spin glasses with Imre Kondor as a student of physics. I was told then that Optimality Theory had been born exactly from simulated annealing and connectionism, even if you do not find any overt trace of it in most of contemporary OT literature. To be sure, my original seminar paper was very superficial, and it was during my Ph. D. research that I started to think more about the issue. I received a further impetus by reading the article of Jäger (2002) on bidirectional finite-state OT, which reminded me of the passion I used to have towards different types of “infinite numbers”.

Then, a discussion with Balázs and Kriszta Szendrői introduced the polynomials into the picture, while Maartje Schreuder and Dicky Gilbers supplied me with several phonological phenomena to work on. So the plan became to present in the thesis the combination of simulated annealing with Optimality Theory as an alternative to finite-state approaches to OT. But the topic grew larger and larger, and finally finite-state approaches were omitted from the dissertation altogether. And yet, the fact that many readers have found my arguments often less convincing, and certain decisions quite *ad hoc*, shows that the work is not finished yet: a more forceful framework and more compelling details have to be worked out in order to account convincingly for the observed phenomena. It is to be hoped that the present thesis is only the first, and not the last word pronounced on SA-OT.

Hearty thanks go to Gosse Bouma, my supervisor, Gertjan van Noord, who practically acted as a co-supervisor, and John Nerbonne, my promotor. The frequent discussions with them improved the content of my work, even if I not always listened to their advice. Indeed, you must be in a motivating environment in order to be fruitful, and they unquestionably provided me with such an environment on the highest level. Part of this environment were my colleagues, my roommates, who also helped me significantly (including solving technical problems): Gerlof Bouma, Francisco Borges and Robbert Prins. On a larger level, each member of the Alfa-Informatica Department, the Center for Language and Cognition Groningen (CLCG), the School of Behavioral and
Cognitive Neurosciences (BCN), ESSLLI and LOT have also contributed to this work, thanks to informal discussions, the reading groups, fascinating summer and winter courses or financial support. The research reported in this thesis has been primarily financed by the University of Groningen’s program for High Performance Computing and Visualization (2000), which I gratefully recognise.

As already mentioned, I am enormously thankful to Maartje Schreuder and Dicky Gilbers, whose empirical work on stress assignment in Dutch fast speech served as the first concrete example for SA-OT, and our further discussions in the subsequent almost two years have also been extremely fruitful for both Maartje (see the fruits in Schreuder, 2006) and me. Similarly has my dissertation profited from my cooperation with Judit Gervain, as I could use the results of her experiments. It is, however, not possible to emphasise sufficiently that I am alone to be blamed for all flaws (to be found especially in the phonological analyses) of the present thesis, which are often the result of not accepting their advice. Chronologically last, but far not least, I have to express my gratitude to the members of the reading committee—Adam Albright, Paul Boersma, Gerhard Jäger and Jan Koster—not only because I am proud of having them as my readers, but also because their critical remarks were very constructive in the last phase.

As language and style is an important aspect of any text, I am very much indebted to Angela Ashworth and Ruben Comadina Granson for their courses on academic writing in English and English for presentation—I dare to say, a must to any Ph. D. student who is non-native in English. The list of those who have shaped my way of thinking—such as my high school maths teachers, my professors in physics, linguistics and Judaic studies—and those who helped me in any other way in preparing this thesis is open ended, and any enumeration would unquestionably leave out somebody. Special thanks goes to the audience of each of my presentations, because without their questions my trains of thought would have been even less understandable.

Finally, here is a (certainly not complete) list in randomised order of those people who made my stay in the Netherlands pleasant: the secretaries of Cluster Nederlands, Pieter and Gezin Oegema (my landlord and landlady), the Czachesz family (István, Gyöngyi and Vica), the Hungarian and pseudo-Hungarian people in Groningen (Mónika Zempléni, Gábor Imre and Anikó Pausch, Andrea Szentgyörgyi1 and Miháli Kavaratzis, Szilárd Csiszár, István Back, Anikó Szpenatyi and Pieter, Janka Salát, András Káldi, etc.), the whole Folkingsstraat community (Bep, Anette, Rami, Gershom, etc.), Bea Nink, Volker Nannen, Piroska Lendvai, Stefan van der Poel, Ela Polek, Géza Xeravits, Sophia Katrenko, Wout van Bekkum, Farah Berri, Paul and Liesbeth Gabriner.

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1 She is the cousin of the stepbrother of my sister’s husband.