Assignment 4 – Hebrew
Due: March 8, 2011

March 1, 2011

Instructions
The following data are a subset of a Modern Hebrew problem from Kenstowicz and Kisseberths (1979) text Generative Phonology: Description and Theory. Invent and present an Optimality theoretic analysis. Be sure your analysis can rule out the candidates given at the end of the problem. Present your analysis in a clear, well-written report which

1. has an introduction and conclusion
2. states the generalizations
3. motivates and defines unusual constraints
4. justifies constraint rankings
5. summarizes the constraint rankings with Hasse diagrams
6. discusses any outstanding or interesting issues

Please use OTSoft software to verify your analysis. You can also download the program to a Windows computer from http://www.linguistics.ucla.edu/people/hayes/otsoft/. You can get an Excel file with the candidates from the course website.

Notes on Modern Hebrew
The Hebrew data comes from Kisseberth and Kenstowicz (1979). The data are verbs in the “itpa’el” binyan. A binyan is a template of consonants and vowels, and are central to Semitic verbal morphology. You may assume that the verb roots have the form CVCeC or CVCCeC. In traditional terms, you will find processes of vowel lowering, voicing assimilation, syncope, and metathesis.

[h] is a voiceless pharyngeal fricative.
Some analytic suggestions

The Faithfulness constraint that is violated when the surface form has segments in a different order from the underlying form is commonly called **Linearity**. You can look up this constraint in the textbook.

It also useful to remember that faithfulness constraints often come in two flavors: the generic one, and one limited to root (or stem) segments. You may assume that Modern Hebrew has no surface geminates (= adjacent identical consonants).

### Hebrew Data

<table>
<thead>
<tr>
<th></th>
<th>1 sg.</th>
<th>3 sg. masc.</th>
<th>3 sg. fem.</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>a</td>
<td>itparnasti</td>
<td>itparnes</td>
<td>itparnesu</td>
<td>‘earn’</td>
</tr>
<tr>
<td>b</td>
<td>itparsamti</td>
<td>itparsem</td>
<td>itparsemu</td>
<td>‘become famous’</td>
</tr>
<tr>
<td>c</td>
<td>idbalbalti</td>
<td>idbalbel</td>
<td>idbalbelu</td>
<td>‘be confused’</td>
</tr>
<tr>
<td>d</td>
<td>idgalgalti</td>
<td>idgalgel</td>
<td>idgalgelu</td>
<td>‘revolve’</td>
</tr>
<tr>
<td>e</td>
<td>ithamakti</td>
<td>ithamek</td>
<td>ithamku</td>
<td>‘turn away’</td>
</tr>
<tr>
<td>f</td>
<td>itlabafiti</td>
<td>itlabef</td>
<td>itlapfu</td>
<td>‘get dressed’</td>
</tr>
<tr>
<td>g</td>
<td>idbadarti</td>
<td>idbader</td>
<td>idbadru</td>
<td>‘make fun’</td>
</tr>
<tr>
<td>h</td>
<td>idgarafi</td>
<td>idgaref</td>
<td>idgarfu</td>
<td>‘divorce’</td>
</tr>
<tr>
<td>i</td>
<td>itpalalti</td>
<td>itpalel</td>
<td>itpalelu</td>
<td>‘pray’</td>
</tr>
<tr>
<td>j</td>
<td>itxamamti</td>
<td>itxamem</td>
<td>itxamemu</td>
<td>‘warm’</td>
</tr>
<tr>
<td>k</td>
<td>it?ofafi</td>
<td>it?ofef</td>
<td>it?ofefu</td>
<td>‘recover consciousness’</td>
</tr>
<tr>
<td>l</td>
<td>istaparti</td>
<td>istaper</td>
<td>istapru</td>
<td>‘get a haircut’</td>
</tr>
<tr>
<td>m</td>
<td>istarakti</td>
<td>istarek</td>
<td>istarku</td>
<td>‘comb hair’</td>
</tr>
<tr>
<td>n</td>
<td>iptaparti</td>
<td>iptaper</td>
<td>iptapru</td>
<td>‘improve’</td>
</tr>
<tr>
<td>o</td>
<td>istalamti</td>
<td>istalem</td>
<td>istalmu</td>
<td>‘have one’s photo taken’</td>
</tr>
<tr>
<td>p</td>
<td>izdakanti</td>
<td>izdaken</td>
<td>izdaknu</td>
<td>‘age’</td>
</tr>
<tr>
<td>q</td>
<td>izdarasti</td>
<td>izdarez</td>
<td>izdarzu</td>
<td>‘hurry’</td>
</tr>
<tr>
<td>r</td>
<td>idardarti</td>
<td>idarder</td>
<td>idarderu</td>
<td>‘decline’</td>
</tr>
</tbody>
</table>
List of Forms to Derive and Rival Candidates

(1) **UR** it-parnes-ti
    - Winner it.par.nas.ti
    - Rival it.par.nes.ti
    - Rival it.parns.ti
    - Rival it.par.nsti
    - Rival it.par.ne.se.ti
    - Rival it.par.ne.sit

(2) **UR** it-parnes
    - Winner it.par.nes
    - Rival it.parns

(3) **UR** it-parnes-u
    - Winner it.par.ne.su
    - Rival it.parn.su
    - Rival it.par.nsu
    - Rival it.par.nes
    - Rival it.par.su
    - Rival it.par.nus

(4) **UR** it-balbel
    - Winner id.bal.bel
    - Rival id.bal.bal
    - Rival id.balbl
    - Rival id.babe.l
    - Rival i.te.balbel
    - Rival ti.balbel

(5) **UR** it-hamek-u
    - Winner it.ham.ku
    - Rival it.ha.me.ku

(6) **UR** it-palel-u
    - Winner it.pale.lu
    - Rival it.pale.lu

(7) **UR** it-labef-u
    - Winner it.labef.u
    - Rival id.labef.u
    - Rival it.lab.fu
    - Rival it.la.be.fu

(8) **UR** it-saper
    - Winner is.ta.per
    - Rival it.sa.per
    - Rival is.tapr
    - Rival i.sa.per
    - Rival i.te.sa.per

(9) **UR** it-hamk
    - Winner it.ha.mek
    - Rival it.hamk
    - Rival it.ham.ke
    - Rival it.ham

(10) **UR** it-zarez
    - Winner iz.da.rez
    - Rival it.za.rez
    - Rival iz.ta.rez
    - Rival is.ta.rez
    - Rival id.za.rez

(11) **UR** it-darder
    - Winner i.dar.der
    - Rival it.dar.der
    - Rival id.dar.der
    - Rival i.tar.der
    - Rival it.tar.der