Multi-level linguistic interaction in Romance determiners

It is well known that Romance languages are sensitive to gender and number distinctions, enforcing agreement between nouns and determiners. However, in environments of vowel hiatus, different behaviors emerge with respect to the determiner's phonological form and the presence of feminine and plural morphemes. Some Romance languages delete the determiner vowel to avoid hiatus in the singular, but allow hiatus in the plural, for example, Italian:

(i) l'amica/le amiche (*la amica, *l'amiche) the friend[f]/the[f,pl] friends[f,pl]

But others, like Romanian, fail to delete in the hiatus environment, regardless of number:

(ii) o entitate/niște entitati (*nișt entitate)

an[f] entity[f]/some[f,pl] entities[f,pl]¹

Even more striking is the apparent sensitivity to prosodic and syntactic categories, in the case of Spanish:

(iii)	el águila blánca	la amíga	la álta águila
	the eagle[f] white[f]	the[f] friend[f]	the[f] high[f] eagle[f]

In (iii), stress-initial nouns trigger an allomorphic alternation of the determiner from the "normal" feminine determiner *la* to the allomorph *el*, which phonologically matches the masculine determiner. But, non-stress initial nouns do not trigger the alternation, nor do stress-initial adjectives.

An Optimality Theory (OT) type account is presented to account for the data in (i) and (ii), using REALIZE MORPHEME and MAX-IO. For (iii), environment-specific NO HIATUS constraints are posited which demonstrate sensitivity to the prosodic and syntactic properties of the candidates, integrating phonology, morphology and syntax.

¹ The Romanian data here is presented with indefinite article, because definite articles are suffixed to the noun form.