

Input-output mismatches in Optimality Theory: An Abstract Perspective

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Abstract

Bidirectional Optimality Theory allows us to see a wide range of problems which would previously have been considered unrelated from a new perspective, the perspective of asymmetric relationships between input and output. Issues which are grouped together from this perspective include ambiguity and optionality, blocking and freezing, ineffability and nonsense.

Ambiguity Multiple meanings on one side, one form on the other.

Optionality Multiple forms, one meaning.

Blocking An asymmetry is eliminated. For example, two forms may be linked to one meaning, but a preference for one form in production destroys the link between the other form and the meaning.

Freezing An asymmetry is eliminated in certain contexts. For example, optionality may be present for an input meaning in some contexts, but not in others.

Ineffability One meaning, no form.

Nonsense One form, no meaning.

It is also possible to take a high level view on the types of mechanism so far proposed in Optimality Theory that might be relevant to these problems:

Production Only look at links going one way (e.g. standard OT phonology and syntax)

Comprehension Only look at links going the other way (de Hoop and Hendriks, 2001)

Asymmetric bidirectional OT Use different preferences in each direction (Zeevat 2000)

Partial ranked OT Relax, let in extra links (Attilla and Fong 2000)

Stochastic OT Keep moving, let in extra links once in a while (Boersma 1998)

Strong bidirectional OT the only good link is a two-way link (Blutner 2000, Lee 2001)

Weak bidirectional OT Prune and add links until you have a homomorphism (Blutner and Jaeger 2000, Dekker and van Rooy 2000)

We will show that each of these proposals provides at best a partial solution to the problems of asymmetry. We end by considering whether some of these problems can be eliminated using a simple model of the role of context.