

LA RÈGLE DU JEU: VERLAN AS AN EXAMPLE OF ANTI-FAITHFULNESS*

Megan Gotowski
Rutgers University

ABSTRACT

Verlan is a French language game characterized by the inversion of segments (for monosyllabic words) and syllables (for multisyllabic words). In this research, I explain why only certain patterns of reversal are possible. I provide an analysis of Verlan in terms anti-faithfulness (Alderete 2001). Furthermore, I argue that Verlan is best captured via a looping mechanism, viz. Raimy (1999), that is sensitive to the immediate successor relations found in the base. In Verlan, it is possible to (i) start the loop at a new point while respecting these relations, or (ii) reverse the original relations in the base—creating a mirror image—but it is not possible to do both.

Keywords: phonology, language games, Verlan, anti-faithfulness, successor relations

1. INTRODUCTION

Verlan is an example of a language game that is “played” by French speakers, particularly by French youth (Lefkowitz 1989). As in other language games, such as Pig Latin (English) and Tadbaliqs (Tagalog; see Conklin 1956) Verlan is characterized by syllable-reversal. In fact, the name “Verlan” is thought to be derived from swapping the first and the last syllable in the word *l’envers* (the reverse/backward) as in (1) below.

(1) French: [lã.vɛʁ] → Verlan: [vɛʁ.lã] ‘the inverse; backwards’

Language games often exhibit a lot of variation (as discussed in Vaux 2011), but in Verlan this variation is constrained in particular ways—certain patterns of inversion are possible, while others are crucially never attested. This suggests that the optionality that does exist is not unlimited and, consequently, that this “game” is instead governed by phonological constraints.

In this paper, I will address Verlan within Optimality Theory, with an analysis that relies on the looping mechanism developed by Raimy (1999), in order explain how and why variation within language games is constrained. While the focus is on Verlan, the analysis will be extended

* Megan Gotowski, Rutgers University, megan.gotowski@rutgers.edu.

Special thanks to Adam Jardine and members of PhonX at Rutgers University for helpful feedback at various stages of this project. This research has also been improved by discussions with Elliott Moreton, Jen Smith, Katya Pertsova, and by feedback from audience members at UNC-Chapel Hill and APLA/ALPA 2018. Any errors are mine alone.

to other language games, to demonstrate how those that rely on reversal may be captured. This paper is organized as follows: in Section 2, I will discuss the rules of Verlan and how it behaves. In Section 3, I will propose a set of constraints and provide a novel analysis. Then in Section 4, I will discuss how the constraints proposed here apply to language games more generally, before finally concluding in Section 5.

2. PROPERTIES OF VERLAN

Verlan manipulates the syllable structure of French words to create coded language. This happens in distinct ways, however, depending on the kind of syllable. If the original French word is an open monosyllable, of the form CV, the onset and the rime reverse, as in (2) (Lefkowitz 1989).

(2) French: [fu] → Verlan: [uf] ‘crazy’

Conversely, if the original French word is a closed monosyllable (CVC or VC), then an additional process is involved. Before metathesis happens, an epenthetic vowel must be inserted. This vowel has been described as a schwa (see Méla 1988; Lefkowitz 1989), but may be actually realized as an epenthetic /œ/ (Plénat 1995). I will refer to this epenthetic vowel as an /œ/ (the exact vowel does not matter for the purpose of this analysis, however). After this vowel is inserted, the word is consequently re-syllabified, and the two syllables—not segments—are reversed (see 3b, 3d, with subscripts corresponding to syllables). This suggests a preference for a minimum of two syllable words, but not at the expense of inserting an entire syllable (contrast (2)—no epenthesis—with (3) below from Plénat 1995).

(3) [fut] → [fu₁.tœ₂] → [tœ₂.fu₁] ‘soccer’

This, in turn, suggests that Verlan has restrictions on syllable shape that are missing from French, despite the fact that Verlan words are formed by manipulating output forms that should in theory be maximally harmonic (pace Benua 1997, McCarthy 2002). Note that epenthesis is limited; multi-syllabic words are not subject to epenthesis (as in 4, reported in Lefkowitz 1989).

(4) French: [mo.to] → Verlan: [to.mo] ‘motorcycle’

There is no restriction on complex onsets, as seen in (5), from Méla (1988).

(5) French: [blo.ke] → Verlan: [ke.blo] ‘block’

As mentioned, monosyllabic words involve movement of individual segments (see 2), but multi-syllabic words involve movement of syllables. When there are only two syllables in a word, only one pattern of reversal is possible: the first syllable becomes the last (1 2 → 2 1).

When there are three syllables, however, Verlan becomes decidedly more complex; a variety of patterns are attested. The possible Verlan orders are 2 3 1, 3 2 1, and 3 1 2. The patterns that are not found are 1 3 2 and 2 1 3 (as exemplified in the chart below).

FIGURE 1
Verlan Syllable Ordering

Syllable Ordering	Possible?
1 2 3	(French base)
1 3 2	*
2 3 1	✓
2 1 3	*
3 2 1	✓
3 1 2	✓

In other words, while there is a lot of variation, the variation is constrained: it is possible to move the first syllable to the end (see 6), to move the last syllable to the beginning (7), and to reverse all of the syllables, creating a mirror image, as in (8) – but you cannot move the first or last syllable to the middle of the prosodic word (into the second syllable slot). These patterns are illustrated with separate examples from Plénat (1995), in part to show that Verlan forms exist for many French words, and to stress that words from all different categories (such as nouns, verbs, adjectives) are subject to this process of reversal. However, because all of the orders in Figure 1 above are possible in Verlan, there are words that have more than one form— giving rise to optionality not only in terms of reversal patterns in the language game overall, but importantly in terms of *multiple winning candidates* derived from French.

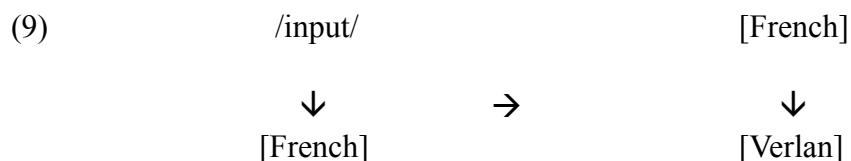
- (6) French: [po₁.si₂.bl₃] → Verlan: [si₂.blœ₃.po₁] (2 > 3 > 1) ‘possible’
- (7) French: [ko₁.mã₂.se₃] → Verlan: [se₃.ko₁.mã₂] (3 > 1 > 2) ‘to start’
- (8) French: [ri₁.go₂.lo₃] → Verlan: [lo₃.go₂.ri₁] (3 > 2 > 1) ‘fun’

Although there are many interesting facets of Verlan, from both a phonological and sociolinguistic perspective, this paper will be primarily concerned with why certain patterns are banned, and why others are possible; it is this puzzle that is the focus of this analysis.

3. ANALYSIS

Previous analyses of Verlan have relied on various approaches, e.g. CV skeletons (Plénat 1995), or hierarchical templates (Weinberger & Lefkowitz 1992), but have struggled to capture or address all of the possible orders in this language game, or why they should be attested. In the analysis argued for here, I will attempt to capture all three patterns (see Figure 1) with the same mechanism, and within the framework of Optimality Theory (OT).

While most discussions of OT concern mappings from the input to the output, I assume that any analysis of Verlan (or any other language game) must map output forms to output forms. That is, Verlan is manipulating the syllable structure of the winning candidates of French. The formulation of constraints based on OO-correspondence is moreover necessary if the rules of Verlan target syllable structure, if this is not considered to be part of the (French) input. As a result, I adopt the Transderivational Correspondence Theory (TCT) of Benua (1997) for this analysis. In general, the TCT claims that although there are still input-to-output correspondence relations, as in standard OT, there are also additional mappings between output forms, as schematized in (9).



In this case, French is constrained by traditional IO-constraints, and the French word then becomes the input (or the base) for Verlan. There are separate OO-constraints (to be discussed below) between output forms in French and output forms in Verlan, that allow reference between the structure of the former to arrive at the winning candidate(s) in the latter.

3.1 ¬LINEARITY-OO

A unique component of language games, including Verlan, is that what is prompting deviation from the base forms is arguably not purely phonological. Verlan is characterized by metathesis, but metathesis in this case is not triggered by any markedness constraint, such as avoiding sub-optimal syllables as in certain languages (see e.g. Holt 2004). Rather there are arguably sociolinguistic factors triggering the “game”—Verlan is associated with more informal contexts, but also with socioeconomic status. Verlan has been tied to issues of identity in the *banlieues* of Paris (see Lefkowitz 1989; Hiscock 2007). To this point, there are some speakers who use Verlan more often than others, and switch to Verlan for social reasons. All of this implies that speakers are not trying to *avoid* anything in terms of phonological structure per se, except for identity with the base French word. For these reasons, I argue that Verlan necessitates an anti-faithfulness constraint viz. Alderete (2001). In this case, I argue that an anti-faithfulness constraint that forces metathesis is required. I suggest that this can be captured with a ¬LINEARITY-OO constraint.

Alderete (2001) argues that it is enough for there to be a single deviation from the faithful output form to satisfy this type of constraint. In this case, however, we would not want to favor minimal metathesis, as order 3 2 1 would then result in a “gratuitous violations of faithfulness” viz. Alderete. I will assume that, in Verlan, this anti-faithfulness constraint is binary, in that segments (one or more) have either been reversed, or they have not (10); I will also consequently assume a binary definition of LINEARITY, in which a given candidate is either faithful to the input or is not, for the purpose of this discussion.¹

(10) \neg LINEARITY-OO: It is not the case that some or all of the corresponding segments maintain a strict ordering relation. (Assign one violation to any output form in Verlan that does not exhibit metathesis).

TABLEAU 1
Motivating \neg LIN-OO

base: po ₁ .si ₂ .bl ₃	\neg LINEARITY-OO	LINEARITY-OO
a. po ₁ .si ₂ .bl ₃	*!	
☞ b. si ₂ .blœ ₃ .po ₁		*
☞ c. blœ ₃ .si ₂ .po ₁		*

While this constraint explains how more than one candidate is able to win, it does not explain why certain patterns are unattested. Additional constraints are thus needed to rule out the illicit orders (1 3 2 and 2 1 3).

3.2 LOOP

As mentioned, it is possible to move a syllable to the beginning (3 1 2) or to the end of the word (2 3 1); in both of these cases, the precedence relations are crucially maintained. This resembles a Raimy-style “loop” (Raimy 1999). Raimy (1999) argues that precedence relations are encoded in the phonological representation. Individual segments are ordered, as in (11). The beginning of the word is indicated with the # symbol, and the end with the % symbol.

(11) # → m → e → t → r → o → %

¹ We could assume a non-binary definition, in which any deviation from the surface order will result in a violation. This would result in candidate (c) in Tableau 1 receiving more violations than candidate (b). However, in either case, both candidates do not violate \neg LIN-OO, which rules out the faithful (French) candidate. The mechanism that enables both (b) and (c) to surface as winning candidates will be explained in Section 3.2 below.

With the concept of precedence (and ordering) encoded, we can make reference to these types of relations. Raimy (1999) suggests that a looping mechanism is able to operate on these; that is, we can start this loop at the end of the word, or at any other point. This is how Raimy proposes that we represent reduplication; if the loop encompasses the entire word, then full reduplication results (as in Indonesian; see (12) from Raimy 1999). If the loop operates on only part of the word, then partial reduplication results.

(12) a. # → b → u → k → u → % = [buku] ‘book’ (non-reduplicated form)



b. # → b → u → k → u → % = [buku-buku] ‘books’ (reduplicated form)

In line with Idsardi & Raimy (2005), I argue that this same looping mechanism may be applied to Verlan. Whereas the loop begins at the beginning of the word in French, in Verlan the loop may start at a different point—namely, the second syllable if the French base is a disyllabic word, or at the second or third syllable if it has three syllables. This is schematized in (13):

(13) a. French: # → 1 → 2 → 3 → % (starts with the first syllable)

b. Verlan: 2 → 3 → 1

c. Verlan: 3 → 1 → 2

Crucially, in all of these cases, the immediate precedence relations are maintained, just as in the reduplication example. That is, the following successor relations are found: (1, 2), (2, 3), (3, 1). This can be captured in the following constraint, which I will refer to as LOOP:

(14) LOOP: Begin the loop (from left to right) at a new point while respecting successor relations: (1, 2), (2, 3), (3, 1). Assign a violation for any successor relation that is not generated by the loop.

In this tableau, the impossible orders (2 3 1 and 1 3 2), represented by candidates (d) and (e), are correctly ruled out by the LOOP constraint. The candidate without any metathesis is also ruled out as predicted by \neg LIN-OO. Although “true” optionality is believed to be rare (see discussion in McCarthy 2002), based on the output, it seems that several winning candidates (b, c) are generated, and ranking between these forms is not possible.

Nevertheless, this constraint does not capture the possible order 3 2 1, as in [Rɛt₃.ga₂.si₁]. In this case, we do find new successor relations— but ones that are the mirror image of those from the French base (1, 2), (2, 3) becomes (3, 2), (2, 1). I argue that this is not accidental. The actual looping mechanism seems to be preserved, but rather than going from left to right, the loop goes from right to left, without “skipping” any intervening syllables. The “mirror candidate”

also starts with the last syllable (the third syllable, in these examples)— never at any other point in the loop.

TABLEAU 2
Motivating LOOP

base: si ₁ .ga ₂ .re _{t3} (1, 2)(2, 3)	¬LINEARITY- OO	LOOP	LINEARITY- OO
a. si ₁ .ga ₂ .re _{t3} (1, 2)(2, 3)	*!		
☞ b. ga ₂ .re _{t3} .si ₁ (2, 3)(3, 1)			*
☞ c. re _{t3} .si ₁ .ga ₂ (3, 1)(1, 2)			*
d. ga ₂ .si ₁ .re _{t3} (2, 1)(1, 3)		*!*	*
e. si ₁ .re _{t3} .ga ₂ (1, 3)(3, 2)		*!*	*

(15) MIRROR: Preserve the original successor relations from the base, but in reverse— starting with the last syllable and going right to left: (3, 2), (2, 1). Only these “reverse” successor relations are allowed in the output. Assign a violation for any other successor relation that is generated.²

In other words, I argue that in Verlan, it is possible to *either* begin the loop at a new point *or* to reverse the original successor relations—but it is crucially not possible to do both. That is, it is not possible to reverse the original relations and then start the loop with a syllable in a non-initial position. This explains why the orders (1 3 2) and (2 1 3) are not possible.

² Note that the reversal candidates also technically have the successor relation (1, 3). We could include this relation in the tableaux, but we would then want to additionally specify that (1, 3) must be the last successor relation in the sequence. As mentioned, MIRROR requires that the loop start at the last syllable. If we conceptualize each candidate as being associated with a pair of immediate successor relations (e.g. 2 3 1 = (2, 3)(3, 1)), then we can easily evaluate if that pair is derived via LOOP, or if it is the mirror image of the original pair of successor relations.

TABLEAU 3
Deriving Optionality (LOOP + MIRROR)

base: si ₁ .ga ₂ .re _t ₃ (1, 2)(2, 3)	¬LINEARITY-OO	LOOP	MIRROR	LINEARITY-OO
a. si ₁ .ga ₂ .re _t ₃ (1, 2)(2, 3)	*!		**	
☞ b. ga ₂ .re _t ₃ .si ₁ (2, 3)(3, 1)			**	*
☞ c. re _t ₃ .si ₁ .ga ₂ (3, 1)(1, 2)			**	*
d. ga ₂ .si ₁ .re _t ₃ (2, 1)(1, 3)		**	*!	*
e. si ₁ .re _t ₃ .ga ₂ (1, 3)(3, 2)		**	*!	*
☞ f. re _t ₃ .ga ₂ .si ₁ (3, 2)(2, 1)		**		*

In Verlan, the constraints LOOP and MIRROR are not ranked in relation to one another, as both the “looping candidates” and “reversal candidates” are attested (see examples in Lefkowitz 1989). Although there is arguably a degree of lexicalization in that some multi-syllabic words are recorded as having only one order, there are other words that have multiple forms, including those that correspond to both candidate types.³ By satisfying LOOP, a candidate will violate MIRROR, and vice versa, but because these constraints are unranked, this is not problematic. Any candidate that violates both of them, however, will necessarily lose out to the others. The existence of unranked constraints is not specific to Verlan, and has been discussed by Anttila (2007) and others.

There are undoubtedly additional constraints at play in Verlan, including one that requires syllables to move as a unit when possible; when there is only a single syllable, segments move by default. If adding an epenthetic vowel will create another syllable (e.g. VC + V = V.CV), this seems to be preferred to segment-reversal. This also suggests that Verlan allows DEP-V viola-

³ I would argue that written records are not exhaustive, given that Verlan is informal, and written resources for this language game are limited. For example, Hiscock (2007) relies heavily on the film *La Haine* by Michel Kassovitz, who featured Verlan. In other words, it remains to be seen if speakers are equally comfortable with all orders for all words, and/or if there are simply preferences for certain orders. In this research, I am not concerned with preferences for particular forms, but with capturing how these orders are possible to begin with. In future research, experimental data examining preferences and frequency effects could be illuminating.

tions to an extent. That is, it is possible to insert a vowel, but only if in doing so another CV syllable is created — an entire CV sequence cannot be added on its own.

3.3 Potential Problematic Examples

Although these two constraints are intended to capture most of the variation that is found in Verlan, there are some problematic cases that must be addressed. There are examples where the vowel in a vowel-initial word rests in its base position, giving the illusion of an illicit 1 3 2 order, as in (16) from Plénat (1995).

(16) French: [e₁.ku₂.te₃] → Verlan: [e₁.tu₂.ke₃] (1 > 3 > 2) ‘listen’

In cases such as these, however, I argue that the vowel may not be visible for metathesis. If this is the case, then the vowel would be “extrametrical” in the sense that it would not participate in the loop. The loop would be across the latter two syllables, and the word would otherwise behave as if it were a two syllable word (where the order of the syllables is switched). In other words, it is possible that words like (16) are actually represented as in (17), where the interior brackets indicate the domain of the looping mechanism.

(17) French: [e.₁[ku₁.te₂]] → Verlan: [e.₁[tu₂.ke₁]]

Note that there is no general vowel anchoring process, as there are vowel-initial words that behave as expected, as in (18; Méla 1988). It remains an open question as to when vowels are able to “anchor,” and if there is an additional ALIGN-V constraint that is operational.

(18) French: [e₁.kɔl₂] → Verlan: [kɔl₂.e₁] ‘school’

Another question concerns whether the vowel always has to be initial for the purpose of anchoring. There are some counter-examples to the processes hitherto described, such as (19), reported by Plénat (1995). It is not clear how exactly this is derived, unless the vowel is also not participating in metathesis. Perhaps it is also no coincidence that this resembles the mirror (multi-syllabic) candidates, but rather than syllables being in mirror image, segments are. However, this type of reversal is certainly atypical.

(19) French: [k₁ɔ₂m₃] → Verlan: [m₃ɔ₂k₁] ‘like/as’

There are also certain words that only appear to be exceptional because of a separate process of vowel deletion (Méla 1988; Lefkowitz 1989) as in (20).

(20) French: [fam] → Verlan: [fa.mœ] → [mœf] ‘woman’

Lastly, there is the question of how words with four-syllables (or more) should be analyzed. These seem to be rare, as they have not received much attention in the literature. However,

Weinberger & Lefkowitz (1992) provide the example below in (21)- modified here to show syllable structure- in which the first two syllables are reversed with the last two syllables.

(21) French: [a₁.pa.r₂.tə.₃.mã₄] → Verlan: [tə.₃.mã₄.a₁.pa.r₂] (3 > 4 > 1 > 2) ‘apartment’

This example respects the looping mechanism; the successor relations are (1, 2)(2, 3)(3, 4) (4, 1). The loop begins with the third syllable in this case. It is also possible that speakers are “chunking” syllables, in which case the two chunks are reversed (1 2) → (2 1).^{4 5} More data on possible combinations with four-syllable words in Verlan is needed, however.

4. GENERAL IMPLICATIONS

Although this analysis concerns Verlan, there are important typological implications. In Verlan, the constraints LOOP and MIRROR are not ranked in relation to one another, which accounts for the degree of optionality exhibited— that is, both looping and reversal candidates are found. The prediction is that in other language games, LOOP may outrank MIRROR, and only candidates with transposed syllables will be attested. Conversely, MIRROR may outrank LOOP, and only the reversal candidates will be possible. Both of these patterns have, in fact, been attested in the literature, including in two separate games in Tagalog (see Conklin 1956).

For example, we see the same pattern in Tadbaliiks, where the last syllable moves to the front (and cannot simply move anywhere). In this language game, it seems that only LOOP is operational. The examples are modified from Stockwell (2017).⁶

(22) a. Tagalog: *pa.lít* (1 2) → Tadbaliiks: *lít.pa* (2 1) ‘exchange’

b. Tagalog: *ta.gá.log* (1 2 3) → Tadbaliiks: *log.ta.gá* (3 1 2) ‘Tagalog’

Note that although Stockwell acknowledges that a looping mechanism could capture the game here, he suggests that this does not explain why metathesis is exhibited and when. However, as previously mentioned, language games are motivated by sociolinguistic factors—the purpose is to deviate from the base to create a coded language. For this reason, the analysis here crucially depends on an anti-faithfulness constraint in addition to the looping mechanism. This constraint, –LIN-OO, is high-ranked in Verlan (and presumably in Tadbaliiks and in other language games), but not in the base language (French, Tagalog)— this ensures there is metathesis. In other words, being unfaithful to the base is motivated by virtue of “playing” the language game.

⁴ Thanks to Katya Pertsova (p.c.) for this suggestion. The result would crucially be the same.

⁵ This is somewhat similar to Weinberger & Lefkowitz (1992), who suggest that syllables may be grouped together.

⁶ Tadbaliiks also exhibits consonant-copying with affixed words, not illustrated here.

In Tadbaliks, \neg LIN-OO \gg LOOP \gg MIRROR. Unlike in Verlan, however, there is no optionality in terms of where to start the loop. This suggests that there is an additional constraint on where the loop may start— either on the first syllable (Tagalog) or on the last syllable (Tadbaliks). This additional requirement is not unusual. Given that language games with “looping candidates” are often characterized by the first syllable moving to the end of the word, or the last syllable moving to the beginning, it is likely that LOOP may be broken down into other, more specific iterations (in the same way that DEP or MAX are thought to actually correspond to several constraints on insertion and deletion, respectively). Thus, in the table below, I will modify LOOP, such that it reads LOOP-LAST; the loop must commence with the ultimate syllable *and* preserve the immediate successor relations from the base. Any candidate that does not start with (3,1) and/or that contains a relation not found in the base (as in (d-e)) is assigned one violation.

TABLEAU 5

Tadbaliks

base: ta ₁ .ga ₂ .log ₃ (1, 2)(2,3)	\neg LINEARITY-OO	LOOP-LAST	MIRROR	LINEARITY-OO
a. ta ₁ .ga ₂ .log ₃ (1, 2)(2, 3)	*!	*	**	
b. ga ₂ .log ₃ .ta ₁ (2, 3)(3, 1)		*!	**	*
☞ c. log ₃ .ta ₁ .ga ₂ (3, 1)(1, 2)			**	*
d. ga ₂ .ta ₁ .log ₃ (2, 1)(1, 3)		*!	*	*
e. ta ₁ .log ₃ .ga ₂ (1, 3)(3, 2)		*!	*	*
f. log ₃ .ga ₂ .ta ₁ (3, 2)(2, 1)		*!		*

In another Tagalog language game (baliktád), however, complete segment reversal (as in (23) below, reported in Conklin (1956)) is possible.

(23) Tagalog: *salamat* \rightarrow *tamalas* ‘thanks’

Examples of complete syllable reversal are found in language games spoken by speakers of Chaga (Raum 1937), Saramaccan (Price & Price 1976), and Zande (Evans-Pritchard 1954), as is also reported in Bagemihl (1987).

It might be objected that not all such language games that involve syllable movement rely on the same patterns of reversal (or do not rely on these patterns alone). There are two important points to be made here: (i) these constraints are not intended to be exhaustive in nature, and (ii) if language games exhibit the illicit orders (2 1 3) and (1 3 2), these might still be captured with the looping mechanism. Recall that in Verlan there are words in which the first vowel seems to be immobile, while the rest of the syllables transpose as usual. I suggested that this may be captured by an ALIGN constraint, that essentially restricts the domain of the loop (such that it only operates over part of the word). This could be what is happening with examples such as (24), from Luchazi (Trevor and White 1955). As in the counter-examples from Verlan, the domain of the looping mechanism might be limited. The brackets here indicate the part of the word the loop operates on.

(24) Luchazi: ya.mu.[kwe.nu] → ya.mu.[nu.kwe]

If there is variation not only in how these constraints are ranked, but also in the domain of the loop, quite a number of language games are generated—but given the range of options found in language games, this may be a rather desirable consequence.

5. CONCLUSION

Although Verlan is characterized by a non-trivial degree of variation, I argue that the rules of the game may be captured via Optimality Theory and OO-constraints. It is possible to map output forms from French to output forms in Verlan, arriving at the correct candidates. Verlan may be a language “game,” but it is crucially still subject to phonological rules. There are several constraints that shape Verlan, and these restrict how syllables can move; although multiple patterns are possible in theory, not all are attested. I have argued that games such as Verlan are motivated by a desire to deviate from the base— and as a result, metathesis in this case is an example of anti-faithfulness. However, beyond this, Verlan is also sensitive to ordering, which suggests that this kind of variation should be modeled with a looping mechanism and explicit reference to immediate successor relations. An open question, however, concerns the domain of the loop. Given that the looping mechanism has been invoked for both partial and total reduplication, there does not seem to be an a priori reason to think that one loop must operate across an entire word.

In addition, while this analysis is intended to capture Verlan, it also has consequences for typology. As discussed in Section 4, the mechanisms discussed here may be thought to apply to a variety of other language games, and they make predictions about the types of patterns that should or should not be attested. The ultimate goal is that several language games may be captured with the same general constraints.

REFERENCES

- Alderete, J. D. (2001). Dominance effects as transderivational anti-faithfulness. *Phonology* 18.
- Anttila, A. (2007). Variation and optionality. In P. de Lacy (Ed.), *The Cambridge Handbook of Phonology*. Cambridge: Cambridge University Press.
- Bagemihl, B. (1989). The crossing constraint and 'backwards languages'. *Natural language & Linguistic Theory* 7(4), 481-549.
- Benua, L. (1997). Transderivational identity: Phonological relations between words. Doctoral Dissertation, UMass.
- Conklin, H. (1956). Tagalog speech disguise. *Language* 32.
- Evans-Pritchard, E. E. (1954). A Zande Slang Language. *Man* 54, 185-186.
- Hiscock, R. (2007). A l'envers: le verlan dans La Haine. Doctoral Dissertation, Memorial University of Newfoundland.
- Holt, D. E. (2004). Optimization of syllable contact in Old Spanish via the sporadic sound change metathesis. *Probus* 16.
- Idsardi, W. & E. Raimy. (2005). Remarks on language play. Manuscript, University of Maryland and University of Wisconsin-Madison.
- Lefkowicz, N. (1989). Verlan: Talking Backwards in French. *The French Review*.
- McCarthy, J. J. (2002). *A thematic guide to Optimality Theory*. Cambridge: Cambridge University Press.
- Méla, V. (1988). Parler verlan: règles et usages. *Langage et société* 45, 47-72.
- Plénat, M. (1995). Une approche prosodique de la morphologie du verlan. *Lingua* 95, 97-129.
- Price, R. & S. Price. (1976). Secret Play Languages in Saramaka: Linguistic Disguise in a Caribbean Creole. In B. Kirshenblatt-Gimblett (Ed.), *Speech Play*. Philadelphia: U. of Pennsylvania Press.
- Raum, O. (1937). Language perversions in East Africa. *Africa* 10, 221-26.
- Raimy, E. S. (1999). Representing reduplication. Doctoral dissertation, University of Delaware.
- Stockwell, R. (2017). Emergence of the faithful by consonant copying in a Tagalog language game. *Proceedings of AFLA* 24.
- Trevor, J. C. & C. M. N. White. (1955). Backwards Languages in Africa, *Man* 55, 96.
- Vaux, B. (2011). Language games. In J. Goldsmith, J. Riggle & A. C. L. Yu (Eds.), *The Handbook of Phonological Theory, Second Edition*. Oxford: Blackwell Publishing.
- Weinberger, S. & N. Lefkowitz. (1992). Uncovering French syllable structure with Verlan. In C. Laeuffer & T.A. Morgan (Eds.), *Theoretical Analyses in Romance Linguistics: Selected Papers from the Nineteenth Linguistic Symposium on Romance Linguistics (LSRL XIX)*. Philadelphia: John Benjamins.