

# Why Lithuanian Accentuation Mattered to Saussure

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The only paper which Ferdinand de Saussure ever read before an international congress, and the only two articles he published in linguistics journals other than those of the Société de Linguistique de Paris, were all on Lithuanian accentuation. Saussure's Law, the only historical linguistic law he succeeded in establishing, dealt with the same subject. Yet accounts of his life and work have never offered an explanation of this interest, treating it as a one-off problem unconnected to his other linguistic concerns. On the contrary, Saussure believed that a particular feature of the Lithuanian pitch accent was the missing link of Indo-European linguistic history, the most direct living relic of the vowel <sup>\*A</sup> hypothesized in his 1879 *Mémoire* on the original Indo-European vowel system. Lithuanian accentuation offered independent proof that the core proposals of his early work, which the German linguistics establishment had rejected or neglected, were in fact correct.

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In August 1880 Ferdinand de Saussure (1857–1913), having recently completed his doctorate at the University of Leipzig, travelled to Lithuania for a fortnight with the intention of doing dialect research.<sup>1</sup> Voyages to Lithuania were by no means unusual for Indo-Europeanists in this period (see Redard, 1976: 149–150). Like so many others, Saussure felt uniquely drawn to Lithuanian as being the Galapagos of

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<sup>1</sup> The date is established in Joseph (2007a), based on Saussure's passport for the trip, found among the thousands of his papers discovered in 1996 and deposited in the BGE.

linguistic evolution, where, for whatever reasons, the pressures that had driven the modernization of the other languages of the family had not applied — at least, not in those parts of the country where contact with Polish and other neighbouring languages had not levelled out ancient features in recent times.

Even though the earliest records of Lithuanian were less than 400 years old, they seemed to give a more direct view into the original Indo-European mother language than did any of the other daughters. Besides its unusually full system of noun cases, it had a relatively conservative phonology. It even possessed, as ancient Greek did, a system of accents based partly on tone or pitch, and this added to the sense of its great ancientness; for although only a few linguists at the margins persisted in the Romantic belief that human language was originally sung, not spoken, such potent ideas can have a long afterlife.<sup>2</sup>

Saussure had taken a course on Lithuanian at Leipzig under August Leskien (1840–1916), author of a recent book on Slavic-Lithuanian and Germanic morphology (Leskien, 1876). It was one of the few courses that Saussure acknowledged attending to seriously (Saussure, 1960: 21).<sup>3</sup> Leskien's concern with shifts of accent in the historical development of Lithuanian prompted a strong and abiding interest in the topic on Saussure's part. Lithuanian and the rest of the Baltic branch share many features with Slavic, but it is immediately noticeable on comparing Lithuanian verb conjugations or noun declensions with their Slavic counterparts that the accent does not fall on the same syllable. Sometimes it does, but in many cases it falls a syllable earlier in what looks to be a random pattern.

Besides the place of the accent, Lithuanian differs from neighbouring languages in marking it, as noted above, not just by stress (increased volume), but by intonation (change in pitch). Fridrichas Kuršaitis (1806–1884), a Prussian of Lithuanian descent known to Saussure by his Germanicized name Friedrich Kurschat, began in 1849 to publish studies describing the intonations. He extended these descriptions in his Lithuanian grammar of 1876, Saussure's main source of information on the language in preparing his *Mémoire* on the primitive Indo-European vowel system (Saussure, 1879), a book which he published whilst still a student, in December 1878.<sup>4</sup> Kurschat described how most Lithuanian words have one syllable (or part of one) spoken at a higher pitch than the rest of the word. This pitch accent takes one of three forms:

1. The voice rises quickly when it begins to utter the syllable, and straight afterwards it falls quickly and thus brings the syllable to an end; such a syllable has its vowel marked in writing with the *grave* accent (˘).

<sup>2</sup> Amongst the most memorable versions is that of Saussure's fellow Genevese, Rousseau (1781 [1761]).

<sup>3</sup> However his course notes from Leipzig, also among the papers mentioned in note 1, show that he had been a more assiduous student overall than he later recalled (Joseph, 2008a).

<sup>4</sup> The word *primitif* of the title carried ideological baggage: 'it implied that comparative grammar allowed access to an "organic" period in which the language was being constituted or its form established' (Meillet, 1903: 49: 'on entendait par là que la grammaire comparée permettait d'entrevoir une période "organique" où la langue se serait constituée et où sa forme se serait établie'). It harks back as well to the title of Pictet (1859–63), the book that first sparked Saussure's interest in linguistics (see Joseph, 2003; 2004). As will be seen further on, Saussure (1879) tracks the mother language from its earliest stage through various phases of development that occurred whilst its speakers were still a unified community.

2. The voice rises slowly and gradually until it reaches the end of the syllable, and then falls quickly; this vowel is marked with the *circumflex* accent (˘).
3. The voice rises sharply at the start of the syllable, and then falls gradually until it reaches the end of the syllable; this vowel is marked with the *acute* accent (´).<sup>5</sup>

These three accents were not distributed equally: the first occurred only on short vowels, and the second and third only on long vowels. But just how the circumflex and acute were distributed amongst the long vowels presented a puzzle.

It seemed natural for Kurschat to adopt the accent marks of ancient Greek, which had a pitch accent system of its own, but it had the effect of inclining linguists to imagine that the two systems might be identical and a direct survival of an original Indo-European pitch accent.<sup>6</sup> In other words, the intonations would be a ‘pro-ethnic’ feature of the Indo-European languages, predating the division into separate linguistic branches.

One of those so swayed was the Russian linguist who first discerned a pattern in the distribution of the two long-vowel accents. Filip Fedorovich Fortunatov (1848–1914) realized whilst reading Kurschat that, in Lithuanian, *ir*, *il*, *im* and *in* had the acute intonation when they corresponded to historically related Sanskrit words containing a long vowel (*īr īl īm īn*, or after certain preceding sounds, *ūr ūl ūm ūn*), but the circumflex intonation when their Sanskrit counterparts had the short vowel *a* or just the sonant *r l m n* on its own (Fortunatov, 1878: 586).<sup>7</sup> The correspondence was too regular for this to be a coincidence. More significantly still, the set with the Lithuanian acutes and the Sanskrit longs corresponded regularly with Greek long *ō* and Latin long *ā*. Seeing these correspondences extend across four branches of the Indo-European family, Asian as well as European, and perceiving Lithuanian intonation as pro-ethnic, Fortunatov concluded that in the mother tongue these two sets of words were distinguished by tone, but that outside Lithuania this distinction had been lost, apart from the trace it left in the length of the vowel.

Careful comparison of the data would show soon enough that this was unlikely to be so, and that hearing Lithuanian tones was not like listening to a phonograph cylinder from several thousand years ago. But Saussure saw that Fortunatov’s insight was correct on a crucial point which he later described as ‘totally new and of an

<sup>5</sup> These descriptions are adapted from Sealey’s (1963: 15), which were based on his own close observation of Lithuanian speakers and are the clearest I have found of this highly complex phenomenon. Many different designations have been used for the intonations, none of which has been recognized as definitive. To avoid confusion I shall hereafter refer to them, as some but not all linguists do, using the names of the accent marks which were assigned to them by Kurschat, namely grave, circumflex and acute. Kurschat also referred to the circumflex tone as *geschliffen* ‘smoothed’, which Saussure rendered into French as *douce* ‘soft’; and to the acute tone as *gestossen* ‘raised’, rendered by Saussure as *rude* ‘rough’.

<sup>6</sup> The superficiality of the Lithuanian–Greek resemblance and the illusion created by the use of the same accent marks were both pointed out by Kuryłowicz (1932).

<sup>7</sup> Sonant or vocalic *r* is familiar from West Country English and Midwestern American as the vowel of words such as *hurt* [hɹt], or, lengthened, in *heard* [hɹd]. Sonant *l m n* are the final sounds of *people*, *prism*, *prison*.

unexpected kind' (Saussure, 1922 [1894a]: 496–497). Lithuanian accentuation might not continue ancient intonations directly, yet neither had it arisen *ex nihilo*. The distinctions amongst Lithuanian accents *did* continue features of the Indo-European mother language, just not intonational ones.

In Saussure's *Mémoire*, \* $\bar{r}$  is one of the seven 'sonant coefficients' posited for primitive Indo-European, sounds capable of functioning as vowels or consonants depending on their environment.<sup>8</sup> Two of them, \* $A$  and \* $\varnothing$ , correspond to no sound in any attested language. Their existence was deduced by Saussure based on the distribution of other sounds. He hypothesized too that, before the end of the pro-ethnic period, a new vowel, which he symbolized as \* $A$ , came into the system as a 'degenerescence' of the sonant coefficients \* $A$  and \* $\varnothing$ . He thought that phonetically this \* $A$  was probably like the French mute *e* [œ], but insisted — unusually for the period — that how it sounded was fundamentally unimportant. What mattered was the place it occupied in the system of vowels as a whole.<sup>9</sup>

Establishing the existence of this hypothetical vowel \* $A$  is a principal aim of the *Mémoire*. It would, for example, account for cases in which Sanskrit has an *i* where Latin and Greek have *a* (Sanskrit *pitṛ*, Greek *patēr*, Latin *pater* 'father'). All instances of \* $A$  eventually dropped out or changed to another sound, varying by language group. When it occurred after another vowel, including a sonant coefficient functioning as a vowel, it disappeared, but the vowel preceding it was lengthened.

Saussure tracked the primitive system through several phases of its evolution, and in the last stage, the system as he deduced it contained long sonants as well as short ones — an \* $\bar{r}$  as well as an \* $r$ . Sanskrit has both short *r* and long *ṛ*, and projecting them back into the pro-ethnic stage allowed Saussure to explain the distribution and correspondence of many other forms. However, only recently had a critical mass of linguists come to accept even the short \* $r$  as part of the proto-language.<sup>10</sup> To accept its long version too was more than most could swallow. Even Saussure could not conceive of the proto-language distinguishing long and short vowels in its earlier stages; hence his historical compromise of a system of short vowels that merged to form longs just before the break-up of the mother language.

Saussure, in other words, interpreted Fortunatov's correspondences as follows:

	Primitive I-E	→	Pro-ethnic I-E	→	Sanskrit	Lithuanian
Set 1:	* $r$	→	* $r$	→	a / ṛ	iṛ
Set 2:	* $r$ + * $A$	→	* $\bar{r}$	→	īr / ūr	ír

<sup>8</sup> Saussure used the symbol  $r$  with a circle below rather than the more usual dot, because subscript dots were commonly used to indicate cacuminal (retroflex) consonants, creating an ambiguity. The other sonant coefficients were \* $i$ , \* $u$ , \* $y$ , \* $ṃ$ , \* $A$  and \* $\varnothing$ . From his earliest unpublished manuscript on phonology (Saussure, 1995) to his late courses on general linguistics, Saussure maintained that, ultimately, any sound could function as a consonant or a vowel; but he acknowledged that their articulatory makeup inclined some sounds more toward one function than the other.

<sup>9</sup> In the 1880s it would come to be equated with the schwa of the Semitic languages and represented as \* $\varnothing$ , even by Saussure in some of his late writings.

<sup>10</sup> Others instead took Sanskrit *r* to be a later reduction of \* $ar$  or \* $er$ .

From looking just at Sanskrit, it was not evident that the two sets went back to a single minimal difference, namely the absence or presence of <sup>\*A</sup>. It is the Lithuanian reflexes, with their own minimal distinction in intonation, that make this apparent. With these sets established, the second set offered the proof Saussure needed of his posited pro-ethnic long <sup>\*ġ̄</sup> and primitive <sup>\*A</sup>. Fortunatov had thus given independent support for Saussure's daring hypotheses, and had unintentionally revealed to Saussure how the Lithuanian acute intonation was the living relic of his primitive Indo-European <sup>\*A</sup>.<sup>11</sup>

The link between <sup>\*A</sup> and the acute tone thus seemed reasonably well established. Yet Kurschat's work was full of anomalies and inconsistencies where accentuation was concerned, and this was probably the main lacuna which Saussure hoped to fill with his field work in Lithuania in 1880. Unfortunately, the two weeks he spent there were not fruitful. Scant notes survive, and none of them find their way into any of his later work on the language. The reason emerges from some of his undated manuscripts.

There is in effect no foreign observer capable of *discovering* Lithuanian accentuation: one can, after being informed about it, control it, rectify it <as much as one likes;> — one cannot carry the first axe into this virgin forest, without having been born Lithuanian.<sup>12</sup>

I leave aside all the difficulty that a foreign ear has in grasping this accent; I am supposing a perfect and ideal <ear>: even then, the observer would find it impossible to obtain a general idea of the accent; because one would in effect have to command <[illegible]> the totality of the words, <[illeg.]> of their inflectional forms in order <to hazard> a single word of this accentuation. The foreigner <who is reduced to asking someone else about it instead of interrogating himself> will never obtain anything more than a fragmentary image of the confused [illeg.] of this accent.<sup>13</sup>

Three months after this trip he moved to Paris to undertake a second doctorate, which he eventually abandoned after being appointed in the autumn of 1881 to take over Michel Bréal's (1832–1915) lectures on Gothic and Old High German at the École des Hautes Études. This meant that for the next several years he would have to focus on the phonology and morphology of the Germanic languages, but his teaching

<sup>11</sup> Kortlandt (1977: 319) has subsequently extended this insight to propose that the Lithuanian acute and grave intonations are the surviving reflexes of Saussure's sonant coefficients, whilst the circumflex intonation reflects early contractions and the lengthened grade.

<sup>12</sup> BGE Ms fr. 3953, f. 224 recto and verso: 'Il n'y a pas en effet d'observateur étranger capable de *découvrir* l'accentuation lituanienne: on peut, après en être informé, la contrôler, la rectifier <tant qu'on voudra;> — on ne peut pas porter dans cette forêt vierge la première hache, à moins d'être né Lituanien.' (Angular brackets surround text added above or below the original line.)

<sup>13</sup> BGE Ms fr. 3953, f. 232: 'Je mets de côté, en cela, toute la difficulté qu'éprouve une oreille étrangère à saisir cet accent, je suppose <une oreille> parfaite et idéale: l'observateur se trouvera, même ainsi, dans l'impossibilité d'obtenir une idée générale de l'accent; c'est qu'il faut en effet, commander <[illisible]> la totalité des mots, <[illis.]> de leurs formes de flexion pour <hasarder> un seul mot de cette accentuation. L'étranger <qui en est réduit à interroger autrui au lieu de s'interroger soi-même> n'obtiendra jamais qu'une image fragmentaire de l'[illis.] confuse de cet accent.'

always included a comparative dimension in which Greek, Sanskrit and Lithuanian were prominent.

Allowed a change of focus in 1888–1889, he gave a course on the comparative grammar of Greek and Latin and an introduction to the study of Lithuanian, the latter, according to his report for the year, at the request of five of his students (Fleury, 1964: 66). This allowed him to turn his attention to the detailed analysis of the language more fully than previously. With a paper on Lithuanian accentuation which he read to the Société de Linguistique de Paris on 8 June 1889 (see Saussure, 1889), this became the dominant topic of his research over the next several years.<sup>14</sup>

Before delving into his historical analysis of how the circumflex and acute intonations derive from \* $\bar{r}$  and \* $\acute{r}$ , Saussure began his 1889 paper by pointing out a key fact: that in final syllables, ‘the acute and circumflex intonations exist (or existed at a given moment) *on unstressed as well as on stressed long vowels*’.<sup>15</sup> It followed from this that the intonation does not depend on the stress. Kurschat had assumed that the intonation was part and parcel of the stress, and others followed him in the assumption. Saussure perceived that it is in fact a quality proper to the vowel, and independent of stress. The stress makes the intonation evident, but does not create it (see Meillet, 1900: 195). This cleared the way for Saussure to revisit the distribution of circumflex and acute accents amongst the long vowels starting from a completely new basis.

Kurschat had given a very complex picture of the stress patterns in conjugations and declensions of the language, positing no fewer than four separate classes of nouns just to account for why, for example, the noun *laikýti* had its stress (shown by boldface) on the second syllable, whilst the otherwise similar *ráižyti* had its stress on the first. Saussure’s realization enabled him to detect a purely phonological pattern linking intonation with stress in a regular, law-like fashion. First, though, he would have to go through all the available data. In addition to Kurschat’s, which reflected what Saussure called the ‘classical Lithuanian of Prussia’, there were the often conflicting data collected further east by Antanas Baranauskas (1835–1902), a Roman Catholic bishop and poet known to Saussure by his Polish name Baranowski (see Saussure, 1922 [1894a]: 503).<sup>16</sup> This entailed more work than he could do in time for the June paper, so he deferred it.

<sup>14</sup> Saussure’s 1889 paper is described here on the basis of his 1894a article, to which he added a note stating that it contains only one minor addition to the 1889 paper.

<sup>15</sup> Saussure (1922 [1894a]: 490): ‘les intonations “geschliffen” et “gestossen” existent (ou ont existé à un moment donné) *aussi bien chez les longues atones que chez les longues toniques*.’

<sup>16</sup> At this point Saussure knew Baranowski’s work only from its synthesis by Weber (Baranowski and Weber, 1882; see Saussure, 1922 [1894a]: 501–502). Saussure bought this book in March 1889 (bookseller’s invoice in BGE Archives de Saussure 369/1, f. 8), but he had read it much earlier, to judge from the draft of a letter discussing it which he addressed to Kurschat, who died in 1884 (BGE Archives de Saussure 387/7, ff. 166–167). Baranowski distinguished three degrees of Lithuanian vowel length, and although Saussure’s paper takes this up, I am leaving it aside because of the level of technical detail involved. Saussure would later acquire a copy of Baranowski (1898) (Gambarara, 1972: 327). Other studies of Baltic languages which figure prominently in Saussure’s notes include Bielenstein (1863; 1864), Bezenberger (1877; 1885), Kurschat (1883) and Nesselmann (1845) (BGE Archives de Saussure 387/7, ff. 175ff are the title pages cut from these studies, covered with forms drawn from within them).

Saussure was still very much aware that Lithuanian accentuation might offer the proof that the controversial vowel system put forward in the *Mémoire* was correct. It would take a great deal of work to put together the demonstration that this was so, and he could do little more than lay out the problem in his talk to the Société. It was well enough received for him to pin his hopes on its being his long-awaited breakthrough project. He was determined to develop it properly, and so declined to publish his paper immediately in the Société's journal. He would instead work on it over the summer whilst back home in Geneva.

This was however a difficult time for him, both professionally and personally, and in the end he decided to stay in Geneva for the academic year 1889–90 in order to develop the extensive treatment of Lithuanian accentuation and intonation that he envisioned, expanding the paper on the subject which he had read to the Société in June and laying out the link to the sonant coefficients of the mother language.<sup>17</sup> He wrote to Bréal asking to have an entire issue of the journal devoted to Lithuanian. Bréal said that there was no obstacle to this. They would simply need to insert a couple of lines explaining the motive to readers.<sup>18</sup>

The many notebooks which Saussure filled during this period show that his projected book on Lithuanian accentuation would have brought together his more than ten years of thinking about the general linguistic issues that it raised. To take just two examples:

the accent <had to> be resumed, <and is in effect resumed,> for the Lithuanian idea, in *the opposition of two values*, outside of which the idea conceives of nothing, between which there is no middle term.<sup>19</sup>

<By> a term such as QUANTITY, <what do we wish> to designate <if not the> kind of differences (<or> means of differentiation) regularly put at the disposal of each syllable, in order to

or else we mean nothing, — (for knowing what this means of difference rests upon, on duration or on something else, is a supremely indifferent point for a language, the nullity of which our linguists <strangely> have never understood. We begin to do linguistics when we<sup>20</sup>

<sup>17</sup> Saussure (1922 [1894a]: 490) says that since 1889 he has been developing 'a separate work treating both the intonations of Lithuanian and the tonic accent of this language' ('un ouvrage spécial, traitant à la fois des intonations du lituanien et de l'accent tonique de cette langue').

<sup>18</sup> Michel Bréal to Ferdinand de Saussure, 10 October 1889, in BGE Archives de Saussure 366, ff. 32–34.

<sup>19</sup> BGE Archives de Saussure 378/2, f. 17 recto: 'l'accent <devait> se résumer, <et se résume en effet,> pour l'idée lituanien, dans *l'opposition de deux valeurs*, hors desquelles elle ne conçoit rien, entre lesquelles il n'y a pas de moyen terme'.

<sup>20</sup> BGE Archives de Saussure 378/12, p. 5 recto: '<Par> un terme comme celui de quantité, <que voulons-n> désigner <si ce n'est des> genres de différences (<ou de> moyen de différenciation) mis régulièrement à la disposition de chaque syllabe, pour  
'ou bien nous ne voulons rien dire, — (car de savoir sur quoi repose ce moyen de différence sur la durée ou sur autre chose, c'est là le point suprêmement indifférent pr la langue, dont nos linguistes <chose étrange,> n'ont jamais compris la nullité. On commence à faire de la linguistique quand on.' It is not unusual for sentences to break off this way in Saussure's drafts.

‘Opposition’, ‘value’, ‘difference’ are all terms central to the theory of language put forward in Saussure (1916). By the autumn of 1890 Saussure had reams of notes on Lithuanian, but nothing for publication.<sup>21</sup> He returned to Paris for one last academic year, before taking up an ‘extraordinary’ (i.e. fixed-term) chair at the Université de Genève in the autumn of 1891. Before it could become permanent he would be expected to produce a book or a series of articles of major significance. He put his hundreds of pages of Lithuanian notes and drafts aside and tried writing instead about the general theoretical issues to which Lithuanian accentuation, and phonology generally, gave rise: issues of synchrony and diachrony, their relation to the phonetic and the morphological, and the nature of linguistic signs. But the result was ever more pages of drafts that he could not bring to satisfactory completion.<sup>22</sup>

In September 1892, at the closing session of the Ninth International Congress of Orientalists, held in London under the presidency of Max Müller, it was decided to accept the invitation from the Egyptologist Édouard Naville (1844–1926), Saussure’s uncle by marriage, to hold the Tenth Congress in Geneva in 1894 (Morgan, 1893: I.ii). Naville had no intention of doing all the hard organizational work; the presidents never did. That was the job of the secretaries, a role which fell to two younger colleagues, one of whom was Saussure, who shared a family mansion with Naville at Malagny, some five miles north of Geneva.

The idea began to take shape in Saussure’s mind that the Geneva Congress might be the occasion to make the big breakthrough he had been aiming at for more than a decade: the proof of the correctness of the sound system he had hypothesized in the *Mémoire*, based upon the evidence from Lithuanian accentuation. Around this time, he came across a reference to a recent (1891) article by Adalbert Bezzenberger (1851–1922) containing observations about Lithuanian intonation that Saussure judged to be ‘half true, half false’.<sup>23</sup> This convinced him of the urgency of getting his own, better understanding of the matter into print.

Returning to the Lithuanian notes now, with the added imperative of the need to show the Université new publications so that he could be considered for an ordinary post, he decided first of all to finish up the paper which he had given to the Société in 1889, rather than hold onto it any longer. He promised Louis Duvau (1864–1903), his former student who had taken over from him as editor of the Société’s *Bulletin*, that he would receive it shortly.<sup>24</sup>

In fact he kept Duvau waiting for more than a year, before in the end sending him what was in effect the original draft he had written in 1889, with the addition of just a paragraph about a relatively minor point, and an announcement at the end that a second part would follow (Saussure, 1922 [1894a]: 490n). The big revision could still

<sup>21</sup> The bulk of the Lithuanian notes are in BGE Ms fr. 3953 and Archives de Saussure 376–378, although many are scattered elsewhere. Parts of ff. 257–310 of Ms fr. 3953 have been published in Jäger et al. (2003).

<sup>22</sup> These are the ‘Double Essence’ manuscripts, included in Saussure (2002: 15–88).

<sup>23</sup> BGE Archives de Saussure 376/17, f. 1. This notebook can be dated to 1892, since it refers to the paper of June 1889 to the Société de Linguistique de Paris as having occurred three years previously.

<sup>24</sup> See Ferdinand de Saussure to Antoine Meillet, 4 January 1894, in Benveniste (1964: 95–96).

come in time for the Congress. Saussure counted on James Darmesteter (1849–1894) attending, but was meanwhile writing to other important Parisian linguists trying to persuade them to come. Linguists and Orientalists had their own distinct circles, with some overlap, though Saussure himself had not frequented the Société Asiatique during his Paris years. Now, though, he hoped that the success of the Congress generally, and his own contribution in particular, might finally justify his decision to return to Geneva in their eyes.

On Saturday 8 September 1894, Saussure read his paper on ‘The Accentuation of the Lithuanian Language’ to the Congress. It went back to points raised in the paper he had read to the Société in 1889 and recently published in its journal. The core question was how the three intonational contours of Lithuanian accentuation — grave in short vowels, circumflex or acute in long vowels — interacted with where the stress fell in the word. Looking at many corresponding pairs such as *laikýti* and *ráižyti*, Saussure noticed that those with the stress on the second syllable had something in common: their tones. Specifically,

1. Whenever the *second* syllable was stressed, it had an acute vowel.
2. The unstressed syllable preceding it had a grave or circumflex.

Conversely,

3. Whenever the *first* syllable was stressed, this tonal pattern never occurred.

This suggested that these words had not originally belonged to separate morphological classes, as Kurschat assumed, but to the same one. At an earlier, prehistorical stage of the language,<sup>25</sup> the stress always fell on the earlier syllable:

*\*laikýti*                      *ráižyti*

By the stage of the language for which the first written texts are available, the interaction between tone and stress had taken effect. The stress was attracted away from a syllable with a grave or circumflex vowel onto the next syllable, if the latter had an acute vowel:

*\*laikýti*      →      *laikýti*

The result was that in this later state of the language there appeared to be two different classes of words:

*laikýti*                      *ráižyti*

But in reality they were one, their identity being disguised by a change that was merely phonological, not connected with any difference in meaning. This seems at first glance like a rather trivial technicality in a little-known language, but Saussure recognized its potential importance. It greatly simplified Lithuanian grammar, by reducing Kurschat’s four noun classes to two (one in which the movement of stress took place, another in which the stress stayed put).

<sup>25</sup> As the oldest Lithuanian text dates only from the mid sixteenth century, its prehistory is relatively recent.

Charles Bally (1865–1947), who had not planned to attend the meeting until Saussure urged him to,<sup>26</sup> was greatly impressed by his presentation. Years later he recalled seeing in it flashes of Saussure the poet:<sup>27</sup>

This scholar, so impersonal on the surface, was an artist down to the marrow. In his youth he was very strongly drawn toward literature, and his intimates knew some beautiful verses from his pen. He brought this artistic sense over into his scientific constructions. When F. de Saussure communicated to the Congress of Orientalists, meeting in Geneva in 1894, his discoveries on Lithuanian intonations, which caused such a great stir, one had the impression, on seeing him trace his schemata on the blackboard, of a mathematician demonstrating a theorem, and yet, through their sober elegance, his demonstrations produced an almost aesthetic sensation.<sup>28</sup>

It is extraordinary to realize that this was the first and last paper that Saussure would ever present at an international conference. Amongst the members of the Société he had felt at home; their Saturday evening meetings were more like a family salon than a congregation of strangers with professional rivalries and positions to defend. At least with this Congress he could deliver his paper on his home turf. But it was more uncomfortable for him than Bally perceived, and only the imperative of an upcoming decision over whether he would be appointed to a permanent chair ensured that he saw it through. The résumé of his paper in the proceedings reads as follows:

The place of the accent has regularly shifted by one syllable when the accent fell on a circumflex syllable which was itself followed by an acute syllable, and in this case the accent has moved to the acute syllable. The law can be formulated: ‘Stressed circumflex + unstressed acute gives unstressed circumflex + stressed acute.’ This makes all the schemata of declension and conjugation which until now have appeared fantastical become suddenly simple. Mr de Saussure demonstrates this with the declension of *žolė*, with its four tonic paradigms, all the forms of which he reduces to two paradigms, one mobile, the other immobile.<sup>29</sup>

At long last, he had a linguistic law to his credit. The textbooks of Indo-European still include Saussure’s Law, as formulated in that résumé. As the careers of

<sup>26</sup> Ferdinand de Saussure to Charles Bally, 3 July 1894, in Amacker (1994: 92).

<sup>27</sup> On Saussure’s poetry, see Joseph (2007b).

<sup>28</sup> Bally (1915 [1913]: 55): ‘C’est qu’au fond, ce savant, en apparence impersonnel, était artiste jusqu’au moelle. Dans sa jeunesse un goût très vif le portait vers les lettres, et ses intimes connaissaient de lui quelques beaux vers. Ce sens artistique, il a reporté sur ses constructions scientifiques. Lorsque F. de Saussure communiqua au Congrès des Orientalistes, réunis à Genève en 1894, ses découvertes sur les intonations lituaniennes, qui eurent un si grand retentissement, on avait l’impression, à le voir tracer ses schèmes au tableau noir, d’un mathématicien qui démontre un théorème, et pourtant, par leur sobre élégance, ses démonstrations produisaient une sensation presque esthétique.’

<sup>29</sup> Saussure (1897: I.89 [1922: 603–604]): ‘Le siège de l’accent a été constamment déplacé d’une syllabe quand l’accent reposait sur une syllabe douce (dite par Kurschat *geschliffen*), elle-même suivie d’une syllabe rude (*gestossen*), et l’accent s’est porté dans ce cas sur la syllabe rude. On peut formuler la loi: “Douce tonique + rude atone donne douce atone + rude tonique.” Tous les schémas, jusqu’à présent fantastiques, de la déclinaison et de la conjugaison deviennent par là soudainement simples. M. de Saussure en fait la démonstration sur la déclinaison de *žolė*, comportant quatre paradigmes toniques, dont il ramène toutes les formes à deux paradigmes, l’un mobile, l’autre immobile.’

nineteenth-century linguists went, this is what made him a success — the one enduring insight, independently verifiable by examining the grammar of Lithuanian, and creating a bit more order where before there had been less, in just the way a law was meant to do.

The *Mémoire* had created far greater order out of far greater chaos, but the system proposed there was not empirically verifiable. Much had to be taken on faith, not just the hypothetical sonant coefficients but the belief that all the facts left unresolved would eventually be resolved. Such faith was not widespread. Although accounts of Saussure's life present the *Mémoire* as a great and enduring achievement, the fact is that it has been decades since the consensus of Indo-Europeanists has accepted its basic proposals.<sup>30</sup> Saussure's Law, on the other hand, remains on the books, and probably always will.

But Saussure did not even complete a written version of his Congress paper for publication in its proceedings, and the decision as to whether he would be given a permanent professorship was drawing near. Realizing how humiliating it would be, not just for himself and his family but for all those who had supported him in the Université, if he were to be turned down for an 'ordinary' chair, he abandoned the planned second part announced at the end of his article in the journal of the Société.

Instead he focused his attention on two articles for the *Indogermanische Forschungen*, now generally recognized as being the most prestigious journal in the field. It was also the journal of the Neogrammarians, whom he resented for their failure to appreciate his early work; but he needed them now, and was prepared to play the game their way. These were — again, almost unbelievably — the only two articles he ever published in a scholarly journal, apart from those of the Société de Linguistique de Paris. Each takes up just twelve pages in the 1922 collection of Saussure's publications.

The two articles were both on Lithuanian, though only one dealt with accentuation. The first appeared in the 1894 volume of the journal, which was dedicated to his teacher Leskien. Here Saussure focused on the declensional system, motivated perhaps by the desire to show the Université that the work he was doing had at least a morphological as well as a phonological direction (Saussure, 1894b). It is directed against the journal's co-editor, Karl Brugmann (1849–1919), another of his Leipzig teachers, who in *Lithuanian Folksongs and Tales* mentioned in a note that the nominative plural and genitive singular ending *-ns* of the so-called consonantal declension was an ancient feature of the language going back to the 'ante-dialectal' period (Leskien and Brugmann 1882: 288n).<sup>31</sup> During this period, Brugmann stated,

<sup>30</sup> By the time of his 1909–10 course on Comparative Grammar of Greek and Latin, even Saussure was presenting students with a mainstream proto-Indo-European phonological repertoire rather than his own radical version of thirty years before. See Albert Riedlinger's course notes, BGE Ms Cours universitaire 824 (1986/15), *Grammaire historique (comparée) du grec et du latin*, Prof. F. de Saussure, 1909/1910, Cahier A (Phonologie), ff. 10–11.

<sup>31</sup> The passage occurs in Part II, Brugmann's studies of the grammar and lexicon of the dialect of Godlew based on texts he collected there.

it already gave way to a further development in which the *n* disappeared from the ending, leaving the preceding vowel nasalized. Saussure shows that the ending *-ens* was ‘absolutely impossible’ in proto-Lithuanian, and that its original full form *-enės* is attested in texts of the sixteenth and even the seventeenth century (Saussure, 1922 [1894b]: 514).

Early on Saussure acknowledges the difficulties of knowing what is authentic in the texts and what was tampered with to make it look more ancient — a practice amongst some editors comparable to the manufacture of pseudo-antique furniture. He proposes that the solution lies in considering forms not in isolation, but as part of a textual whole: ‘the value of a form is entirely in the text from which it is drawn, that is in the totality of morphological, phonetic and orthographic circumstances that surround it and shed light on it’.<sup>32</sup>

The discussion that follows displays an encyclopaedic knowledge of the Lithuanian dialect material published up to that time. Here there is much more to draw on than in the accentuation research, since the endings are always indicated whereas the intonations are not. His critical remarks about particular texts, including even the first known text in Lithuanian, the *Catechismusa prasty szadei* (*Plain Words of Catechism*, 1547) of Martynas Mazvydas (c. 1510–1563), being ‘unfortunately written in the sad dialect of Memel’ (Saussure, 1922 [1894b]: 524), leave no doubt about his pessimism over the possibility of establishing anything firmly in the phonological history of Lithuanian.

The second article (Saussure, 1896) states Saussure’s Law in the clearest possible terms and stakes his claim to authorial priority for it. He was struggling to get in under the wire: the article includes a postscript beginning, ‘When preparing these lines I did not know of Hirt’s recent book on *Indo-Germanic Accent*.’ Hermann Hirt (1865–1936) stated, with no attribution to Saussure, that ‘the acute endings have attracted to them the accent of a circumflex root’ (Hirt, 1895: 95).<sup>33</sup> Fearful that he was about to lose his law, Saussure pulled out every stop in asserting his prior claim. He insisted that Hirt did not really understand the phenomenon, and that he himself had already stated the law in print several times, starting with his paper to the Société (Saussure, 1889; 1894a). But the focus of that paper lay elsewhere, on the putative relationship between the Lithuanian tones and Sanskrit vocalic *r̥*, and the relevant statement — in its entirety: ‘it results from the law developed further on (*Accentuation*) that the accent could not fall on *nē-* if the following syllable was acute’ — is buried within a remark about the participial infix.<sup>34</sup>

He had a better claim in the printed abstract of his paper which appeared in one of the fascicles of proceedings from the Congress of Orientalists in 1895, but these

<sup>32</sup> Ibid.: ‘la valeur d’une forme est tout entière dans le texte où on la puise, c’est-à-dire dans l’ensemble des circonstances morphologiques, phonétiques, orthographiques, qui l’entourent et l’éclairent’.

<sup>33</sup> Hirt was focused on establishing a separate phonological generalization, Hirt’s Law, which applies to the Slavic as well as the Baltic languages and explains the retraction of the accent to the preceding syllable if that syllable was closed by a consonantal (not sonorant) laryngeal in Proto-Indo-European.

<sup>34</sup> Saussure (1922 [1894a]: 511): ‘il résulte de la loi développée plus loin (*Accentuation*) que l’accent ne pourrait pas tomber sur *nē-* si la syllabe suivante était rude’.

were not widely distributed, and the full proceedings (again including just his abstract, not the full paper) would not reach print until 1897. In his claim against Hirt it looked as though he was grasping at straws. But, for one of the few times in his life, fate smiled upon him. Time established the law as his, tempered only by the earlier date of Fortunatov's observations, so that it is sometimes referred to as the Saussure–Fortunatov Law.<sup>35</sup>

On 23 October 1896, Saussure was at last appointed ordinary professor of Sanskrit and Indo-European languages in the Université de Genève. His research on Lithuanian accentuation had achieved its immediate aim, but its ultimate one — to devise a proof of the original Indo-European vowel system hypothesized in his *Mémoire* — remained out of reach, by the measure of his own exacting standards. The evidence proved elusive. The more sources of data he sought, the more confusion he encountered.

It was obvious that the linguists who had transcribed Lithuanian data over the decades had understandings of the intonation system that were partial in both senses of the word: incomplete, and indicative of an inclination to record what they expected to hear, ignoring nuances that they assumed were meaningless. In the worst cases, they heard only those features which supported their hypotheses and none which challenged them. Concerning the source most attuned to the intonations, Saussure writes with evident frustration that Baranowski

does not hide the fact that the state he is sketching is a sort of ideal norm from which many dialects are far removed, and he is not afraid to admit that none responds to it completely. One could desire more details on the way in which this inter-dialectal average has been deduced.<sup>36</sup>

Another of Saussure's long-cherished dreams was in its death throes. He would give a course on Lithuanian at the Université de Genève in 1901–1902, to a single student,<sup>37</sup> but would never publish anything further on Lithuanian, to his own frustration and that of his former student Antoine Meillet (1866–1936), who never

<sup>35</sup> At one point in the dozens of notebooks which he filled with notes on Lithuanian, Saussure attempted to deny Fortunatov's priority: 'I must add that at the same time Mr Fortunatov had established, ~~a little before~~ <almost at the same> moment when I ~~for my part proposed another theory of the same facts~~ <, without knowing his work which was still in press> I signalled these facts for my part and from other points of view, ~~without knowing his own work~~' (BGE Archives de Saussure 376/1, f. 15n: 'Je dois ajouter que du même coup M. Fortunatov avait établi, ~~peu avant le~~ <presque au même> moment où je ~~proposais de mon côté une autre théorie des mêmes faits~~ <, sans connaître son propre travail alors sous presse> signalais ces faits de mon côté et sous d'autres points de vue, ~~sans connaître son propre travail~~'). In his articles, however, Saussure graciously bowed to Fortunatov's claim to first publication of the insights.

<sup>36</sup> Saussure (1922 [1894a]: 503): 'ne cache pas que l'état dont il trace le tableau est une sorte de norme idéale dont beaucoup de dialectes s'écartent et à laquelle il n'est pas téméraire de dire qu'aucun ne répond complètement. On pourrait désirer plus de détails sur la façon dont cette moyenne interdialectale est déduite.'

<sup>37</sup> This is according to research done in the faculty records by Léopold Gautier, in BGE Ms fr. 1599/8, f. 13. The student, Madame Kama Fairbanks, was a mother-tongue speaker of Russian. The low enrolments in some of Saussure's courses would be used against him in a bitter dispute between the Université and the Department of Public Instruction shortly before his death (see Joseph, 2008b).

ceased drawing people's attention to Saussure's work and crediting him with the whole intellectual framework within which he and his generation worked.

In 1900 Meillet's student Robert Gauthiot (1876–1916) published a paper on Lithuanian accent and quantity which began by stating that virtually everything known about the subject is contained in Saussure's articles.<sup>38</sup> Meillet followed this up with a paper of his own in the next issue of the same journal, and again in a book of 1903 which he dedicated to Saussure on the twenty-fifth anniversary of the *Mémoire*. In each, Meillet laid out Saussure's discoveries on Lithuanian with a clarity and focus that Saussure himself never managed to achieve. As late as 1907, after coming across yet another mention of his Lithuanian work by Meillet,<sup>39</sup> Saussure wrote to thank him for taking every occasion to recall the contents of his papers on Baltic languages, adding

Here too is something that makes me regret never having finished the one for the *Mémoires* of the Soc. Ling. The second article was not only written, but largely typeset, and I received the column proofs of it from the French National Press, it contained precisely the central point from which I had set out, namely that the disappearance of ə [= \*A] had to have caused the difference between *Vėmti peñktas* etc. It was on seeing that Bezenberger had stumbled on the law of *vėmti* (without for his part going beyond this limited case) that I had been incited to begin publishing my observations, and I had the talent of interrupting it even before reaching this capital case which mattered doubly to me because it confirmed the general importance of *gani-tum* versus *man-tum* in Sanskrit. The proofs from the National Press also contained the whole beginning of the morphological theory, or of a morphological theory, by which I explained that intonation had been unified in the Baltic roots.<sup>40</sup>

By this point in his life no one was more frustrated than Saussure himself at the many projects he had left unfinished, for no apparent reason other than his paralysing

<sup>38</sup> Gauthiot (1900) is a study of Lithuanian intonations using the techniques of sound spectrography developed by the Abbé Rousselot (1846–1924) in his phonetics laboratory at the Collège de France. Although the techniques were still rather primitive, the study bore out Saussure's analysis.

<sup>39</sup> *Bulletin de la Société de Linguistique de Paris* 14, ccxij–ccxiii, reporting that at the meeting of 20 April 1907, 'Mr Meillet, recalling the fact recognized by Mr Bezenberger that the accent shift defined by the law of Mr de Saussure does not occur after a short vocalic segment, draws from it the conclusion that this shift occurred independently in Lithuanian and in Old Prussian, and, *a fortiori*, in Lithuanian and in Slavic' ('M. Meillet, rappelant le fait reconnu par M. Bezenberger que le déplacement d'accent défini par la loi de M. de Saussure ne se produit pas après une tranche vocalique brève, en tire la conclusion que ce déplacement s'est produit de manière indépendante en lituanien et en vieux prussien, et à plus forte raison, en lituanien et en slave').

<sup>40</sup> Ferdinand de Saussure to Antoine Meillet, 23 September 1907, in Benveniste (1964: 107–115): 'Voilà aussi de quoi me donner du regret de n'avoir jamais fini celui des *Mémoires* de la Soc. Ling. Le second article a été non-seulement écrit, mais en grande partie composé, et j'en ai reçu les placards de l'Imprimerie Nationale, il contenait précisément le point central d'où j'étais parti, à savoir que c'était la disparition du ə qui devait être la cause de différence entre *vėmti peñktas* etc. C'est en voyant que Bezenberger était tombé sur la loi de *vėmti* (sans sortir qt à lui de ce cas limité), que j'avais été incité à commencer une publication des [*sic*] mes observations, et j'ai eu le talent de l'interrompre avant même d'arriver à ce cas capital auquel je tenais doublement parce qu'il confirmait l'importance générale de *gani-tum* contre *man-tum* en sanscrit. Le placard de l'Imprimerie nationale contenait aussi tout le commencement de la théorie morphologique, ou d'une théorie morphologique, par laquelle j'expliquais que l'intonation s'était unifiée dans les racines baltiques.'

perfectionism. This included his attempts at writing about the issues he would raise in his general linguistics courses, known to us only through the posthumous publication of the *Course in General Linguistics* (1916) reconstructed mainly from his students' notes.

The story is often recounted of how the phonemes hypothesized in Saussure's *Mémoire* were confirmed in 1927 when Jerzy Kuryłowicz (1895–1978) showed how they corresponded to the distribution of certain consonants in Hittite, an archaic Indo-European language not deciphered until 1911. In reality what Kuryłowicz was confirming were the primitive Indo-European 'laryngeal' consonants — the Danish linguist Hermann Möller's (1850–1923) reinterpretation of Saussure's sonant coefficients as part of his project to prove the original unity of the Indo-European and Hamito-Semitic families.

Saussure, who never mentioned laryngeals in the *Mémoire*, said that \*A and \*ǵ, whilst capable of functioning as either consonants or vowels, were inherently more inclined toward the vocalic end of the spectrum (see further Szemerényi, 1973). Möller, who had very recently hypothesized the existence of laryngeals in Proto-Hamito-Semitic, seized upon Saussure's sonant coefficients and ventured that they were in fact identical with his laryngeals. Saussure never endorsed Möller's proposal, though neither did he reject it out of hand.<sup>41</sup> In any case, the phoneme \*A is at the very core of the *Mémoire*, and it is fully part of the vowel system. The Hittite consonants which Kuryłowicz pointed to were a rather indirect confirmation of what Saussure had proposed — not the direct, audible, living remnant that Saussure himself had identified in Lithuanian accentuation.

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<sup>41</sup> See also Joseph (2010). Saussure and Möller struck up a friendship through their correspondence. Both were disappointed at the hostile reaction to their early work from the German linguistics establishment, and according to Cuny (1937: 142), they jointly contemplated abandoning linguistics and undertaking study of the *Nibelungenlied*, which remained an enduring interest of Saussure's.

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