FRAGMENTED YET CONNECTED DERIVATIONAL PARADIGMS.
THE CASE OF FRENCH DENUMERALS IN –aire
Bernard Fradin
Laboratoire de Linguistique Formelle, CNRS & U Paris Diderot

1. Paradigms can be defined very broadly as “sets of linguistic elements with a common property” (Booij 2005, 8) or more tightly, especially for inflection, as sets of cells pairing a word-form with a morphosyntactic content (Finkel and Stump 2009). Most authors agree to conceive of them as networks of forms correlated with one another on a formal or semantic plane, or on both of these planes. Paradigms are useful to the extent that they allow one to predict new word-forms (Paradigm Cell Filling Problem (Blevins 2016, 199)) or new members of a morphological derivational family. This capacity has long been acknowledged as attested by the widespread use of ‘Proportional Analogy’ in Word and Paradigm (WP) approaches. In an abstractive approach to morphology, word-forms are crucial to elucidating the organization of inflectional or derivational systems since, as Ackerman, Malouf et al. (2016, 137) put it, “a consequence of permitting words to be contrasted with words is the possibility of discovering morphological organization in the system of relations between words”.

This talk investigates French denumeral items in –aire, which are apparently organized on the model of derivational series but exhibit several unusual properties under closer scrutiny. Denumerals are units morphologically correlated with numerals e.g. eng hundred-th ← hundred, the term numeral being used for linguistic expressions (three) and number for the corresponding meanings (‘3’), in accordance with Huddleston and Pullum (2002, 1715). A discrepancy between formal and semantic properties, together with systematic gaps in some series that are completed by forms from other series, constitute two of the properties not observed with standard derivational patterns such as agent nouns in –eur (eng -er) e.g. chanteur ‘singer’. These properties, and others mentioned below, provide clues that an abstractive approach is the best suited to account for the system displayed by denumerals in -aire.

2. From the formal point of view, the denumerals in question can be classified in three subsets: that in Xaire e.g. binaire ‘binary’, that in X(e)naire e.g. trentenaire ‘30-year old’ and that in Xgénaires e.g. sexagénaires ‘60-year old’. From the point of view of their origin, these forms are either adaptations of Latin adjectives (themselves derived from distributive adjectives), e.g. fra binaire < lat binarius, octogénaires ‘80-year old’ < lat octogennarius, or regular derivations from French cardinals, e.g. cinquantenaire ‘50-year old’ ← cinquante ‘fifty’. From the semantic point of view, four patterns of interpretation are observed: (i) Time measuring: ‘CARD(inal)-year old’ e.g. trentenaire, octogénaires; (ii) Element counting: comprising CARD similar elements’ e.g. musique ternaire ‘ternary music’; (iii) Anniversary reading: ‘which took place CARD years ago’ le cinquantenaire du débarquement ‘the 50th anniversary of the Normandy landing’; (iv) Ordinal: ‘occupying rank CARD (in a given series)’ e.g. école secondaire ‘(secondary) [high] school’. One of the problems is that no series except the Xgénaires one is associated with a unique interpretative pattern. Forms in Xaire can mean either (ii) or (iv) cf. binaire vs. secondaire, and those in X(e)naire either (i) or (iii) cf. trentenaire vs. millénaire. This prevents us from considering these markers as bona fide morphemes. But discrepancy also goes the other way since meaning (i) can be expressed both by series in Xaire and Xgénaires e.g. quarantenaire / quadragénaires ‘40-year old’. This situation makes it difficult to predict which lexeme corresponds to meaning pattern (i) for bases in tens extending from 20 to 100. The picture becomes clearer, however, once all series of attested forms are listed in a table with columns for the original Latin distributive units, their derived adjectives in –arius, French units adapted from them, and innovative forms created in French (some hints in Saulnier 2010: 70). This amounts to taking seriously the idea that we are facing a word / lexeme driven modelling.
3. The following arguments support an abstractive approach to the data in question. 1) Denumeral Latin adjectives in –arius (distributive) or –(i)us (ordinal) are the model out of which French numerals in –aire were formed: from 1 to 12 and from 40 to 100 French forms are strict adaptations of Latin adjectival forms e.g. *denarius* > *dénaire* ‘with 10 elements’, *quadragenarius* > *quadragénaire*; in addition, the lack of forms from 13 to 19 in French correlates with their absence in Latin. 2) Adaptation did not occur blindly but according to the semantic and pragmatic needs the speakers had in the society where they lived (onomasiological pressure). This gave rise to a split of the original Latin series, which became two series in French: series in –naire (< lat As in –narius), correlated with Numbers 1-12, plus 20 and 30, kept the element counting interpretation (ii) e.g. *binaire*, whereas series in –génaire (< lat As in –genarius), correlated with Numbers 40 to 90, specialized in the time measuring interpretation (i) e.g. *octogénaire*. 3) New forms associated with the time measuring interpretation were created in order to complete the gapped series in Xgénaire and improve the sound / meaning correspondence of numerals measuring time. Since *tricénaire* has the element counting meaning ‘with 3 elements’, no form adapted from Latin denoted the meaning ‘30-year old’. Hence the creation of *trentenaire* and *trentagénaire*. However, the first form is far more frequent than the second one (3,110,000 vs. 2,140 hits on Google, 11/2017). *Centenaire* played a leading role in the expansion of *Xnaire* numerals, which nowadays displays a complete series from Number 8 to 5,000 e.g. *cette grande rousse dix-septenaire* ‘this big 17-year-old red-haired girl’ (Web, 11/2017), *la nonantenaire chef d’entreprise* ‘the 90-year-old female business manager’ (Web, 11/2017). The important point is that the completing of derivational series and meaning shifts touched upon here developed along formal and meaning contrasts exhibited by the words / lexemes included in the network that the existing lexical derivational series constitute. 4) A basic claim of abstractive morphology is that examining contrasts and similarities between words belonging to a paradigm (network) allows one to discover the morphological organization of the system (internal inspection). While this holds true for inflection, this is generally not sufficient in the case of derivation. For instance, to rightly associate *centenaire* with meaning (i) in (1) *Le centenaire dort* ‘the 100-year old person is sleeping’ but with meaning (iii) in (2) *Le centenaire de la révolution russe* ‘the 100th anniversary of the Russian revolution’ it is necessary to take into account the construction the denumeral occurs in (external inspection): V in (1) requires a human subject, whereas the complement in (2) denotes an event. It will be shown that these requirements do not hamper the abstractive approach but stem from the lexical nature of derived units. As such their meaning is ultimately discourse rooted.