A New Theorem on Swiss Perfectness

Tony Hürlimann and Andreas Klinkert

Presented at the GO III Conference, August 27-30, 1996, in Loèche-Les-Bains

We present and prove a new result on Swiss perfectness which can be stated as follows:

THEOREM: *Every perfect Swiss, who is German-speaking and bull-free and who resides in a pyramid or in a left-oriented lighthouse, can yodel*.

The relevance of the theorem stems from the fact that there are very few people in Switzerland who live in a right-oriented lighthouse. Furthermore, the class of not bull-free persons (the bulls) is very well behaved. Hartz and Wodmer [1995] have shown that one can decide in polynomial time whether a person belongs to the bulls. In fact, they all come from the same canton (Uri); their flag symbol is a bull.)

It has been claimed by the perfect (French speaking) Swiss Di Verou [1996] that also French speaking perfect Swiss can yodel, but we have not seen any proof of it so far.

The motivation behind this theorem is obvious. It comes from the famous, about 450 year old conjecture of Montaigne (1533-1592) -- a Swiss philosopher better known today by his German name *Berg* -- about Swiss classification. The conjecture says that every Hertz-free subpopulation of Swiss containing only odd holes is perfect. The conjecture is still open. We hope our theorem might be useful in making some progress towards proving the conjecture.[1]

Let us come back to our theorem and its proof. In a first version, we needed the additional property that the Swiss must also be HyperSwiss. But Andreas soon noted that this class is empty and, in fact, the proprety is not needed for establishing the theorem.

An essential part of the proof consists in showing that the class of all perfect, bull-free, German speaking persons who live in a pyramid or a left-oriented lighthouse contains only two members (the authors). This part of the proof is however too involved to be presented here. (The interested reader might examine it in a two-part paper to appear in the Journal of Swiss Perfectness.) Therefore, we only need to show here that we (the authors) can yodel to complete the proof.

---

[1] Montaigne himself noted in a footnote in his *Ars Conjecta Helvetica* that he had found a really marvelous proof of his conjecture, but had not enough space to write it down.

Our approach to be presented now is somewhat unconventional -- it consists of showing by "doing" (and not by induction as it may appear at first glance.)

First part of the proof: *Tony yodels* ...
Second part of the proof: *Andreas and Tony yodel together* ...

which completes the proof of the Theorem.

Note added in proof:
The reader might not be convinced of the proof if he or she only skims through the text of this communication. A multimedia version is available upon request.

References:

Hartz and Wodmer, [1995], About Swiss Perfectionism (monograph), Springer, New York.
Di Verou, [1996], personal communication.

Acknowledgments: