Introduction
Elite endurance athletes of today use specialized, scientific training methods and the increasing role of science in sports is undeniable. This is especially true for cross-country skiing. But how and when did scientists and educated coaches gain power? Scientification of training methods in cross-country skiing accelerated in the 1950s and cross-country skiing was an early adopter, even if not all skiers were (Svensson 2013). Still, the experiential knowledge of skiers remain important. How have these different knowledge traditions merged? How has it changed training in theory and practice?

Methods
This paper analyzes how physiologists and skiers interacted in the transformation of training methods. Material from archives, interviews and previous research will be studied using theories of bio-power (Foucault 1998), sportification (Yttergren 2006, Guttmann 1978) and STS (Knorr-Cetina 1999, Latour 1987) Skiers from Sweden and Norway are the main examples.

Results and discussion
Training methods were developed through meetings between practitioners and theoreticians. Scientification of training was driven by hardening international competition. The creation of “rational” training methods was a co-production of knowledge between different knowledge traditions: the traditional, local, tacit knowledge (Polanyi 1958), of skiers and the scientific, written knowledge with universal claims that scientists stood for. The co-production of training knowledge was a matter of control over bodies. Should they be subjected to bio-power (Foucault 1998, 2001) or should they remain under the control of the practitioner? The relationship between skier and scientist resembled that of patient and doctor. Interaction between the expert on the local level (skier /patient) and the universal level (physiologist/doctor) resulted in a knowledge-base that affected both practice and theory. Rational training was in practice not built only on science but also on the individual experience of elite skiers.

References