Wrong interpretations of three important physical observations are the fundamental reasons behind the absurd special theory of relativity (SRT), from 1905. SRT has dominated theoretical physics in almost hundred years, without having done much impact on practical physics.

1 The Bradley Effect
One important observation, in 1728, is the fact that the direction to a distant star appears to depend on the observer’s velocity in a right angle to light’s direction. This fact is easily explained by the raindrop effect. Vertically falling rain looks to be not vertically falling when observed from a moving car. However, it has been assumed that this explanation is valid for absolute ether only, and not for the entrained ether. It has been stated that this Bradley effect should be compensated for the entrained ether. This is said to happen when light entered the entrained region around our planet and the entrained ether’s velocity is added to light’s velocity, and light thereby is bent just as much as is needed for compensation of the Bradley-effect.

This reasoning is wrong. Since transverse component of ether-wind changes only direction of energy transport perhaps, but can definitely not bend the wave-front. This follows from the fact that wave motion is defined to a constant \( c \) everywhere and the wave-front’s orientation thereby is conserved. The telescope detects therefore an unchanged direction, and no compensation occurs. If light were focused into a beam and we could detect beam direction, only then would the compensating effect be visible. The distinction between wave motion and energy motion has been missed, and caused a misinterpretation of the Bradley effect. Bradley’s discovery is irrelevant for ether model and the entrained ether is not really ruled out, but rather abolished, on false grounds.

2 The Michelson Effect
A second observation, in 1887, is found in single colour light propagating forth and back between mirrors. Since light speed is constant \((c)\) in relation to the ether, a moving ether will increase light speed in one direction and decrease it in the opposite direction. Since these two effects are equal in velocity they differ a small amount in propagation time, and a very small, second order, effect remains. (This effect is a difference between two Sagnac effects.) But this predicted effect was never observed.

The above reasoning is wrong, since the effect between atoms in a crystal is not considered. Two nearby atoms in a crystal define their separations by generating static force fields with a value zero on a specific distance. In a moving crystal these fields are dynamic, and \textit{changes propagate with velocity \((c)\)} in relation to the ether, just as light. The speed of information transfer, in relation to the equipment, is increased in one direction and decreased in the other, just as light. So these two one-way fields between atoms are together affected by the ether-wind in the same way as the one two-way field between mirrors. The effect searched between mirrors exists also between atoms, and controls thereby the separation between atoms. This means that the Michelson effect is \textit{compensated} by length contraction, without time dilation. The test failed and proved therefore \textit{nothing}, but was interpreted as an evidence for the opposite of the prediction. \textit{Misinterpretation} of the Michelson effect caused the abolishing of the absolute ether, on false grounds.

3 The Sagnac Effect

A third observation, in 1913, was made on single colour light going in two opposite directions around a closed path. This means that the effects of the ether-wind in the two directions are \textit{added} together, and a first order effect can be detected. SRT could not give a reasonable explanation, but the problem was ‘solved’ by declaring that the effect was caused by rotation. Motivation was that the effect was visible only in rotating equipments at the time.

This conclusion is \textit{wrong}, since the fact that the effect is distributed along a \textit{line}, and not over an area, proves an effect of translation. This is also verified experimentally by R Wang and lately by C S Unnikrishnan. They have both detected Sagnac effect in \textit{translating} equipment, and also demonstrated the ether’s existence. \textit{Misinterpretation} of Sagnac effect as an effect of rotation, instead of as a translational effect, is the reason for the abolishing on \textit{false} grounds of the only correct and important observation. SRT was tailored to explain the nonexistent Michelson effect, had trouble with the Bradley effect, and had no explanation at all to the
Sagnac effect. Three important misinterpretations are therefore the basis of SRT. It is also possible that the existence of the later, general theory of relativity has had an effect of protecting SRT.

4 The Ether
We need to find the ether’s state of motion in order to decide between absolute and entrained ether. Perfect synchronization between separated clocks is not possible. That problem must be circumvented. In the global positioning system (GPS) more than two clocks are used in the satellites, whereby a constant error in the receiver’s clock is made irrelevant. Positioning based on one-way signal velocity is thereby possible. Compensation for Sagnac effect in relation to the centre of our planet is done in GPS. This is equivalent to detecting an ether-wind caused by the rotation of the Earth. A certain and unambiguous verdict for an entrained ether would be achieved if we could detect the same ether-wind in a lab by using an equipment with constant separation between light source and detector. Dr C C Su in Taiwan has described a simple method for this.

Two gas lasers are connected with optical fibres over a few meters distance. The equipment is mounted on a rotating platform and the two signals are compared in an interferometer and registered for later evaluation in such a way that a constant frequency difference is irrelevant. It should be possible to detect the ether-wind from the rotation of our planet. This value is about hundred times greater than Michelson’s ambition.

Conclusions
Misinterpretation of all three important observations is the reason why we have missed the most important observation, and accepted two useless observations.

The Sagnac effect in GPS can be united with an ether translated, but not rotated, by the Earth, that we here call generated. This idea can easily be tested by Dr Su’s method.

References
This article is a short summary of four separate articles presented at NPA 2008. These four articles are available at www.geocities.com/johnerikpersson and contain references to R Wang, C S Unnikrishnan, C C Su and this author.