

# Reliability vs. Validity

Posted on [October 18, 2011](#)

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‘Reliability’ and ‘validity’ are two words that almost always crop up when discussing and analysing scientific research. So, why are they so special? This week I’m going to be discussing the importance and possible flaws surrounding these two fundamental aspects of psychological research.

Firstly I will define each term, since I know how easily they can be confused and mixed up. Reliability refers to consistency. For example, you step on your bathroom scales and read that you have lost 5lbs since last week, you think back to the amount of McDonalds you stuffed yourself with that week and so step back onto the scales to double check. Now you read that you have in fact gained 2lbs (which sounds a bit more reasonable) and realise that you can’t really trust your scales, you need scales that are more *reliable*.

Validity, on the other hand is the extent to which the procedure measures what it intends to measure. There are many different types of validity, including external validity, which is the extent to which the results can be generalised, and internal validity.

Within psychological research it is fully understood that achieving perfect reliability is next to impossible since many error sources will be having an impact on the consistency of results. For a start, psychological research usually involves humans and the use of humans generally leads to inconsistency. We get tired, we daydream, and most of us get bored of continuing repetitive tasks. Environmental changes can also have an impact on results, for example, the time of day, temperature and lighting conditions.

Research strives to have high validity in order to achieve valid conclusions from studies. Results of a study must be valid to be accurately applied and interpreted. Many variables are very difficult to study in psychological research, such as hypothetical constructs as they cannot be directly observed or measured. For example, how do we know if we are actually measuring intelligence when using IQ tests? Therefore, several ways of assessing the validity of research have been established.

Reliability and validity are both very important criteria for analysing the quality of measures. Although they are independent aspects, they are also somewhat related. A measurement procedure cannot be valid unless it's reliable; however, a measurement can be reliable without being valid (someone could measure your height and say they are measuring intelligence, they would get a consistent and reliable result each time but this would NOT be valid since height is not an indicator of intelligence).

Without reliability and validity it would be very difficult to decide which studies should be trusted and which should be completely disregarded.