They argue that explicitly reportable attitudes are the end result of a complex nonlinear timedependent process of multiple less explicit attitudes competing with one another over hundreds of milliseconds.

"Thus, in the context of race, whereas priming procedures provide an estimate of the average evaluation evoked by the black (versus white) faces, the IAT provides an estimate of the strength of association between the category label "black" (ver- sus "white") and negativity."

Implicit measures typically have very **low** convergent validity.

Lacking Theory They argue that research on implicit measures has been "surprisingly atheoretical".

**Does Implicit Imply Lacking Awareness?** Fazio argues that we cannot know whether participants are aware of the stereotypes or not. The measure is implicit rather than the attitude itself.

**Do they predict behaviour?** Fazio et al. (1995) found that automatically activated racial attitudes were predictive of a black target's rating of the quality of her interaction with a respondent.

> The test has reasonable test-retest reliability and so indicates that measurements are not situation or state specific.

It has been argued that in terms of discrimination, the IAT has high predictive validity. But for less controversial subjects like brand preference, explicit measures are superior.

There are some issues with order effects, where the first task influences responses on the second task (similar to those shown in the Wisconsin Card Sorting Task).

Experience also causes effect magnitudes to decline.

Is it a lie detector of self-reports or more 'reliable' or 'truthful'? No, this is not the case. It reveals **associations**. The individual is unaware but rejects and does not conform to this belief OR they are aware, but choose not to report this response due to social concern (**strong** evidence of social desirability). Selfreports measure products of introspection, the IAT does not.

Spivey & Wojnowicz et al. Mouse Tracking Participants were asked to explicitly rate where they 'like' or 'dislike' black people and white people. Mouse trajectories showed greater curvature towards the dislike response for black people, suggesting that there is a cognitive conflict between implicit associations and explicit attitudes.

Fazio & Olson's (2003) Review of Implicit Measures

The IAT (Greenwald et al. 1998) make the distinction for implicit cognition. This reveals automatic associative information that people were either unwilling or unable to report. The IAT indirectly measures strengths of associations among concepts (e.g good, bad, men, women). In the control phases, people categorise words according to class (e.g. male and female in to gender) and then assign them in to preference. RT's and Accuracy are used to contrast responses. This differs from evaluative priming in that it requires explicit categorisation of target stimuli into superordinate concepts.

However, Greenwald et al. 2001 found that presentation of a series of either admired black individuals or disliked whites caused lower scores on the IAT, suggesting that measures are context dependent.

Implicit Attitudes & Associations

Persuasion

The process of changing a person's cognitive evaluation of an attitude object.

"Our deeds determine us, as much as we

determine our deeds" George Eliot

Implicit attitudes are attitudes that are held by the self but are not expressed explicitly.

An **attitude** is a **cognitive representation** that summarises an individuals evaluation of a person, object, group, thing or idea. They differ in their direction and intensity.

Mastery Attitudes help a person to master their environment (e.g. disliking the smell of rotting fish). **Connectedness** They organise and simplify our experience of the world and help us to fit in with those around us.

Measuring attitudes (on an attitude scale) is difficult as people often conceal their implicit attitudes because of demand characteristics, social desirability biases etc. This causes the explicit-implicit distinction. This means that psychologists have to adopt different techniques (usually borrowed from cognitive psychology), separate to self-report measures and questionnaires, to measure attitudes.

ABC of Attitudes (Zanna et al. 1988) An attitude is comprised of Affective This is knowledge about how people feel about an object. Behavioural This is knowledge about past, present and future interactions with the object. Cognitive These are facts and beliefs about the attitude object.

Bem's (1972) Self Perception Theory suggests that we infer our own attitudes from looking at our own behaviours and the environment around us.

The layperson perception of **persuasion** is that it occurs through rational consideration of pro's cons and cognitive evaluations of the attitude object. **Petty, Cacioppo (1981)** argue that objects are processed **superficially** as well as systematically which means that people often rely on salient, accessible information when evaluating an attitude object.

The Foot in the Door Technique (Freedman & **Fraser, 1966)** shows that people (in this field experiment) were more likely to put up a sign in their garden purporting road safety if they had already signed a petition beforehand. Changes in behaviour arguably lead to larger commitments in the future..

Mere Exposure Effect (Zajonc 1968) Zajonc showed participants unfamiliar turkish words and then asked them to rate turkish words according to how positive they perceived them to be. Zajonc found that the words previously seen created more **positive evaluations** of those words. This is also an example of the **familiarity**  $\mathbf{A}$ heuristic.

Fazio et al. (2002) showed female participants slides that paired novel objects with negative words or images. These subtle associations created positive attitudes toward the objects. This is an example of **evaluative conditioning** or the **persuasion heuristic.** Is this lasting or fleeting? Well, Petty et al. (1981) argue that systematic processing is the central route to persuasion and so much longer lasting.