

DIRECT OBSERVATION OF HUMAN BEHAVIOUR WHAT IT IS AND WHY IT MUST BE DONE

Papers from the ISHE Summer Institute Workshop at Boise ID. USA

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A few decades ago human ethology was distinguished from psychology and the other social sciences by evolutionary theory and direct observation of behaviour. Then psychology discovered evolutionary theory and evolutionary psychology took off yielding many interesting insights. However direct observation remained an occasional exercise rather than an essential integral part of psychology. In a much quoted passage, Niko Tinbergen wrote, "It has been said that, in its haste to step into the twentieth century and to become a respectable science, psychology skipped the preliminary descriptive stage other natural sciences had gone through, and was soon losing touch with the natural phenomena" (Tinbergen,1963). That has remained the case in many parts of psychology. Tinbergen's criticism is more damning than its descriptive tone suggests, since, if there is no good description of the natural phenomena – human

behaviour – then it is open to ask what is it that psychology and the other social sciences are researching, albeit with great methodological and experimental sophistication.

Direct observation was the topic of a workshop at the 2017 Summer Institute in Boise. This collection of papers, from the contributors to this workshop, explores the impediments to direct observation, some basic approaches to direct observations and offers examples of its application, sometimes in conjunction with complimentary methodologies and how to teach it.

In “Direct observation, impediments and approaches”, Richer (2017) explores why direct observation of our own species behaviour is so little done in psychology and other social sciences. He argues that the very familiarity and the richness of our cultural understanding of our behaviour is paradoxically an impediment, since that understanding is couched in the language of an active participant in social interactions. That language acknowledges and communicates the subjective states of ourselves and others but it is not couched in the language of a scientist, who is an outsider, a passive observer, who does not use the terms of his subjects and does not study their subjectivity since it is not publically observable and cannot be agreed upon in the usual scientific way of demonstrating a phenomenon for anyone to observe. A major function of our rich everyday knowledge is to help us be successful social participants. That type of practical knowledge is not necessarily useful for a detached science.

Other impediments include

- our moral distaste at viewing our fellow human beings as objects without subjectivity
- initial observations can seem banal and uninformative and familiar
- direct observation is time consuming and expensive
- specific research hypotheses seem lacking

Richer describes the two traditional ethological ways of describing behaviours – by morphology and by consequence. He advocates a seriously playful approach in the early stages of research, trying to find useful behaviour categories to measure. One aid to this endeavour is to look for natural divisions in the phenomena studied. He quotes the Plooij’s work comparing children’s behaviour either side of regression periods in early development, these are periods when the infant becomes cranky, crying and clingy and there no clear cause.

Hendrie (2017) describes the construction and use of ethograms: the sets of detailed descriptions of characteristic behaviours of the species under investigation. The importance of a good ethogram for ensuring consistency across observers is emphasised, which follows the standard scientific requirement for shared definitions of terms. The early stages are often informal, looking for patterns. Different techniques are used: e.g. scanning a number of individuals briefly observing each, following just one for some time. Part of the discipline is avoiding anthropomorphising. Amusing examples are given. Hendrie moves on to some of the techniques for developing behavioural categories testing their reliability, and sampling them. Finally he emphasises that although the early stages can be lengthy and hard, they pay dividends later in getting through to more useful, novel and objective descriptions and understandings of behaviour.

Oberzaucher (2017) argues compellingly for caution in relying on questionnaire and other self report data. She describes the many distortions to which it is prey and how that can take the science off on uninteresting paths. She describes the development of ethograms and offers many practical considerations to maximise the usefulness and reliability of recordings, and their reflection of the natural phenomena, which are as unbiased as possible.

Given the impediments and pitfalls Richer, Oberzaucher and Hendrie describe, it is not surprising that training students in direct observation is not common in degree courses. So Fisher's paper, describing how she has introduced students to direct observation using practical research projects, is an important step forward (Fisher, 2017). She notes that a major stumbling block for students starting such projects is developing research questions. She offers three practical approaches to help students generate specific questions: the use of survey findings, television and other media, as well as anecdotal observation. She gives examples from published work of how this has been helpful. She also includes a précis of the instructions given to students, which offers guidance on constructing an ethogram of non subjective, reliably observable behaviours, and shows how the many pitfalls might be avoided.

Segal (2017) describes the use of direct observation of behaviour to answer specific questions via twin study research. She succinctly sets the scene by describing the basics of twin research. This substantial body of knowledge allows the researcher to move beyond the early stages of open minded observation to developing specific hypotheses about how twins will behave, and then testing those by observation of free behaviour in specific semi naturalistic settings. Crucially there are recordings of observable behaviour, not the use of rating scales or questionnaires or other laboratory methods. In doing this she shows, for instance, how monozygotic twins, compared to dizygotic twins, cooperate more, show more mutually communicative behaviour, tend to be physically closer to each other, and on reunion greet each other more intensely.

All authors recognise the difficulty and hard work involved in direct observation but emphasise its necessity if a science of human behaviour is to achieve a firm foundation.

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