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Is Observing Behaviour the Best Way to Understand Behaviour?

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Abstract

Doliński (2018, this issue) argues that Social Psychology may hardly be considered a science of behaviour anymore, given the rarity of published studies in which the dependent measures involve behaviours other than the completion of surveys, pressing of keys on a computer keyboard, or clicking a mouse. In the present, we comment on this void of empirical studies in which "real" human behaviours are examined to put forward the following points: i) Key-pressing can be a human behaviour as meaningful as any other more complex behaviour (i.e., behavioural complexity is not a good criterion for meaningfulness), ii) Lessons learned from past research in social psychology have shown us that studying "real" behaviour introduces a number of well-known complications, iii) Improvement in the comprehension of human behaviour depends more on a strong theoretical lens constrained by results obtained via rigorous experimentation than on the complexity of people's observed actions.

Keywords

social psychology; behavioural research; theory construction in psychological science; new experimentalism

In his thought-provoking paper "Is psychology still a science of behaviour?", Doliński (2018, this issue) argues that Social Psychology may hardly be considered a science of behaviour anymore, given the rarity of published studies in which the dependent measures involve behaviours other than "the completion of surveys, pressing of keys on a computer keyboard, or clicking a mouse" (p. 3). Baumeister, Vohs, and Funder (2007) already made the same

point 10 years ago but the situation, at least from the inspection of respective volumes of JPSP (10 years ago and now), has not changed. According to Doliński (2018, this issue), this seems to be partly due to "a growing conviction among psychologists that explaining why people display certain reactions holds greater importance than demonstrating the conditions under which people display these reactions" (abstract). In the remaining of the paper, Doliński (2018, this issue) tries to explain why this happens by blaming the cognitive revolution, the relative increased ease of studying verbal outputs relative to "real behaviours", and accusing current research of being too focused on finding causal explanations while neglecting the study of the limiting conditions of human actions, as aforementioned.

In what follows, we comment on this apparent void of empirical studies in which "real" human behaviours are examined and put forward the following points:

i)   Key-pressing can be a human behaviour as meaningful as any other more complex behaviour. In other words, behavioural complexity may not be a particularly good criterion for meaningfulness.

ii) Lessons learned from past research in social psychology have shown us that studying "real" behaviour introduces a number of well-known complications to which Doliński's (2018, this issue) target article gives little to no attention.

iii) Finally we claim that the improvement in the comprehension of human behaviour in social psychology depends more on powerful theorizing (e.g., Farr & Moscovici, 1984; Fiedler, 2014; Garcia-Marques & Ferreira, 2011; Hastie, Ebbesen, Wyer, Hamilton, & Carlston, 1980; Tajfel, 1984) constrained by rigorous experimentation "that has a life of its own" (Hacking, 1983; Mayo, 1996) than on the complexity of people's observed actions.

Key-Pressing Can Be a Human Meaningful Behaviour

The complaint that psychology studies hardly concentrate on behaviours other than key pressing loses momentum if one simply observes, throughout the day, any group of contemporary teenagers and (mostly young) adults in the public arena. The most popular form of interaction seems to comprise some form of key pressing activity often involving interactions with absent others. In fact, it appears that pressing the keys of a cell phone, a tablet or a computer is becoming a standard part of interaction, emotion interchange, communication, impression formation, knowledge acquisition, etc. Prominent examples of this trend go from ever more sophisticated ATM machines, control panels in cars, to all sorts of electronic appliances for domestic use, interactive avatars in stores and public places, not to mention social media such as *Facebook, Instagram, Tinder,* and *Twitter.* Even the presidential influence of the most powerful nation of the world is greatly exerted by key pressing (or tweeting to be more precise).

We would therefore argue that key pressing is becoming a central human behaviour and not an exotic or impoverished form of interaction devised by a few experimental psy-

chologists in their psych labs seated in crystal towers. Given the present rate of technological development (much of it is being conducted in interdisciplinary teams where psychologists play a key role) it is likely that virtual keyboards, voice keys, more human-like avatars and other similar devices will become a central part of human behaviour. We predict that they too will give rise to new, more rich and complex (and yet experimentally manageable) dependent variables blurring the distinction between *key-pressing* and the observation of so-called "real behaviours".

Regardless of what the future holds for social psychology, the theoretical analysis of key pressing or similarly simple verbal behaviours (instead of "real" behaviours) has already proven its potential to significantly advance our knowledge in important areas of human activity. A case in point is the enormous impact of more than 40 years of memory research on "real" life settings such as eyewitness identification in the forensic context. The most common dependent measures in memory research involve key pressing (e.g., "press *old* if you have seen this item before otherwise press *new*), pointing (e.g., eyewitness identification in line-ups) and brief surveys usually in the context of experiments. These surveys often include captious questions. For example, in a classic demonstration of the misinformation effect, Loftus (1977) had participants view an accident involving a green car and later exposed them to misleading questions that presupposed the car was blue. When later asked to select the color of the witnessed car participants showed a marked tendency to shift their color responses in the direction of the misinformation. The point we would like to make is that the so-called limitations and biases of verbal behaviour rather than being an insurmountable problem as it might be inferred from Doliński's (2018, this issue) critique of the use of surveys, are actually often used by researchers to explain human behaviour, to study its limits and to improve it (e.g., Wells, Memon, & Penrod, 2006), reducing bias such as the other race effect (to give an example with a clear social psychological ring; Wells & Olson, 2001).

We suspect that Doliński's concerns regarding the use of surveys stem from the assumption that responses are too closely connected to the concepts under study (see Fiedler, 2014). This is sometimes certainly the case. For instance, a survey question such as "how confident are you about your previous response?" could be directly used to assess whether or not participants are confident in their eyewitness performance. However, more often than not this is not the case. Responses to surveys are related to more distant variables through social and cognitive theory, which, in the case of eyewitness research has led to the conclusion that, under pristine testing conditions, confidence and accuracy are strongly related. However, when less than perfect testing conditions prevail (which is often the case in real life settings), the accuracy of even a high-confidence suspect identification is seriously compromised (Wixted & Wells, 2017). Summing up, in our view, the issue is not the use of surveys (or any other dependent measure) *per se* but the ability to develop powerful theories able to relate social cognition and behaviour to more distant variables in the environment (we return to this point in the last section of the present commentary).

Studying "Real" Behaviour Introduces Well-Known Complications

Studying "real" behaviours in realistic scenarios was some decades ago a very common research practice. Was then that era the "golden age" of Social Psychology as one could ultimately infer from Doliński's (2018, this issue) target article? Well, it was certainly entertaining (that we easily concede), but it can hardly be considered the golden standard by any measure. Just remember the "crisis in confidence" in Social Psychology (Elms, 1975) from the sixties to the mid-seventies, remember the famous "fun and games" critique of Ring (1967) regarding the value of experimental real-world recreations involving elaborated deceptions and little theory, the never-ending lists of experimenter effects (Orne & Holland, 1968) and the ethical problems raised by many of these experiments (Milgram, 1974; Zimbardo, 1969).

To what concerns us here, it is also worthwhile to remember that the "crisis of confidence" was not greatly overcome by any kind of new and sophisticated behavioural observation method or by better staging of realistic experimentation. Rather, the crisis was overcome by new and improved theoretical proposals that led to innovative (theory-dependent) research methods (e.g., see the volumes edited by Farr & Moscovici, 1984; Hastie, Ebbesen, Wyer, Hamilton, & Carlston, 1980; or Tajfel, 1984).

Human Behaviour Is More Understandable Through Theoretical Lenses: A Plea for More and Better Theory

There is a startling sequence in the 1946 American spy film noir "Notorious" in which during a party, Alicia Huberman, the party host (played by Ingrid Bergman), becomes more and more anxious as she witnesses her invitees drink champagne. She seems to suffer from each drop of champagne that is being consumed by the persons present at the party and, in fact, the whole sequence is appropriately stressful and nerve-racking. How was Alfred Hitchcock (the movie's director) able to make a scene that only involves a woman observing others drinking champagne, the most suspenseful scene of the entire movie? After all, crime, fist fighting, guns, wrongheaded passions, speed pursuits, and so on, seem to be the stuff that suspense movies are made of, not a hostess watching her invitees drinking champagne. Well, the answer is simple. Hitchcock made the audience aware that the house in which the party was taking place was the house of a dangerous Nazi spy. The movie's hero, T. R. Devlin (played by Cary Grant) had been assigned the mission to retrieve important secret information located in the house's cellar. If the champagne ran out at the party, members of the household staff would have to go the cellar to get some more bottles, eventually catching Cary Grant's character in the act! What does this tell us? It tells us that the most inconspicuous and immaterial behaviour can be of crucial importance if invested with crucial meaning. Human beings are symbolic beings that care more about the meaning of an act than of the act in itself.

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We would like to argue, therefore, that it does not really matter what kind of behaviour is being studied in psych labs, as long as this behaviour is meaningful, relevant to social goals and/or diagnostic of key underlying mental processes. In this sense, the choice of target behaviours will always depend first and foremost on theory.

Additionally, the search for causes versus the search for limiting conditions of human behavior do not have to be opposed if both goals are theoretical in nature, and not part of debatable inductive strategies (see Garcia-Marques & Ferreira, 2011).

Doliński notes that while his analysis of contemporary research shows that "social psychologists are interested primarily in judgements, opinions, attitudes, norms, and social perception, they do sometimes discuss behaviour" (p. 7). We, on the other hand, would argue that all of these concepts are merely attempts to make sense of behaviour and only researchable through the registrations of some form of behaviour.

In fact, we believe that the contrast between "real behaviours" and "verbal declarations" (Doliński, 2018, this issue, p. 8) is more apparent than real, even if they are discrepant. Both can be theoretically meaningful. But they can also be meaningless and illusory. Importantly, such discrimination should never be assigned to the theoretically "naked" eye.

Neither "verbal declarations" nor "real behaviours" should be trusted without a clear conception about what is generalizable in the situation in which each occurs and what is peculiar to that situation.

Concluding Remarks

In some sense, the redefinition of the object of study of science is inevitable. More often than not, the object changes from something conspicuous and often present in our daily lives to something unobservable by naked-eye standards. Physics used to study the falling of objects, pulls, scales and levers and now it studies incommensurable tiny and ephemeral (and yet theoretically driven) particles such as the Higgs boson. Biology used to study visible attributes of animals in order to classify them in taxonomies and now uses the invisible double helix to the same end. Did these disciplines abandon their objects? Not at all, they simply tried to maximize the informativeness of the results of their research.

By abandoning the observation of "real behaviours" is psychological science doing the same? We wish we could answer but we simply do not know. In order to provide such an answer, we would have to be sure that our discipline is heading towards greater theoretical sophistication and we doubt this to be the case. However, as Doliński (2018, this issue) rightly points out in the beginning of his paper, this is a matter for a different debate.

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Competing Interests

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