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David Keatley

Pathways in Crime

An Introduction to Behaviour Sequence Analysis

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macmillan

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This book is dedicated to anyone that has been told their idea is bad or wrong, just because it's different... Remember: Orville Wright did not have a pilot's license.

FOREWORD

It is a great pleasure to be writing a foreword for this excellent book.

I have been involved with behavioural sequence analysis for about forty years, and on the whole it has been a very positive experience. But I have often been frustrated by the reactions of conventionally-minded colleagues from the “It’s different, so it must be wrong” school of thought.

In particular, they seem to think this is an arbitrary and strange way of going about things. “Where on earth did *that* come from?” they ask. So, at the risk of being a bit too autobiographical, I thought I should explain just where it did come from, for me at least.

The story begins in about 1972, when I decided to leave the subject of my undergraduate studies behind, and attempt to do a PhD in a field which was new to me, namely Social Psychology. I had the good fortune to work in Oxford with Michael Argyle, who was then one of the leading figures in British Social Psychology. His research group had earned itself a huge reputation for the study of ‘NVC’ – non-verbal communication. This meant I had a colossal literature and a lot of experimental know-how to catch up with; or else I had to do something entirely different. Being young, and full of unjustified confidence, I liked the idea of the ‘something different’ option, so I decided to tackle *verbal* communication (or conversation) instead.

The timing could not have been more fortunate, as Social Psychology was giving a lot of attention to social interaction, but mainly in the form of NVC rather than the things people said to each other; while linguistics – which was the red-hot discipline of the day – was giving a lot of attention to the things people said or wrote, but mainly in the form of

individual sentences, rather than the larger structures of whole texts or conversations. There was a gap waiting to be filled. Before long, linguistic pragmatics, conversation analysis, and discourse analysis would come marching onto the scene as major players, but that was not apparent to me at that stage.

So, what is the interesting thing about conversation? People exchange utterances (not unlike the sentences studied by general linguists) except there are more of them strung together, while exchanging non-verbal signals (not unlike those studied by Social Psychologists).

The key thing, obviously enough, is that conversations – or arguments, debates, ceremonies etc. – are not just lots of utterances one after another, but lots of appropriately crafted utterances *following each other in a systematic pattern*. So what then is the nature of that pattern (I am saving the word ‘sequence’ for later) that distinguishes a conversation from a random assortment of utterances?

I started shopping around for methods and models that might help me to get a grip on the problem. I did some experiments on the permutations of utterances that people found to be realistic or unrealistic as conversations. I toyed with the idea of a ‘grammar’ of conversation. This would mean that successions of speech acts would be well-formed as a conversation if and only if they conformed to certain rules (which I would then discover), just as strings of morphemes are well-formed sentences if and only if they conform to certain rules (which Chomsky and others were busily articulating).

Then I came across the work of Robert Bales, a distinguished Social Psychologist at Harvard, who studied the discussions of small problem-solving groups. He divided up their discussions into individual events which were each coded into one of twelve categories, such as ‘*Asks for opinion, evaluation, analysis, expression of feeling*’ and ‘*Gives orientation, information, repeats, clarifies, confirms.*’ The relative prevalence of these categories could then be compared between groups, between different kinds of problem, and between the stages of a discussion. Most crucially for me, he cast his data into a 12×12 table of ‘Reactive Tendencies’, which showed for each of the twelve categories, the probability that the next utterance by another speaker would be from each of the twelve possible types. And there it was. The essence of an all-purpose method for studying sequences of utterances, and other events. Such ‘tables of transitional probability’ still form the core of sequence analysis methodology, right up to the present day. (I later learned that this approach to the study

of event sequences was more generally known as Markov modelling after its inventor, and a sequence of events where each one specifies the probability of what will happen next, is called a Markov Chain).

So that was how the milk got in the coconuts, as they say. The PhD on conversation structure was soon behind me, but the method proved to be so versatile, and the job of inventing variations and extensions of it was so fascinating, that it shaped much of my career over the next four decades. My interest in conversation waned, but the approach stayed with me. I became more of an applied psychologist, and started to look at the time-lines affecting some key problems people face. In general, my interest morphed into a fascination with the pathways by which people get into dangerous situations, and – one hopes – out of them if they make the right choices and decisions. This proved to be a very useful way of looking at the world, and of advising people who have to plan and design for the day when bad news strikes, or at least looms.

The actual problems I looked at were many and varied, including evacuations from buildings on fire; road traffic collisions; episodes of self-harm; fights, rapes and murders; and a variety of mental disorders.

So, I hope there is no one left wondering why behavioural sequence analysis might be interesting and useful, but if there is, just read the next sentence.

analysis and be behavioural but hope I if interesting is is, just left might next no one read sentence. sequence So, the there there useful, why wondering

Not so sensible, the second time around? Why? Nothing has changed (except the original sequence has been lost). A sentence without the right sequence is nonsense. In the same way, an episode of behaviour without the right sequence is nonsense.

And in just that sense, much of what we study in the behavioural sciences, will always be nonsense, unless we record and understand the organised sequences in which events occur.

Enjoy the book!

Nottingham, UK
October, 2017

David Clarke

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This book would not have been possible without the kind and generous help of a growing group of people. I consider myself fortunate to know the people listed here, and lucky enough to have learnt from them. In many ways, I have found it easier to write a book, than write an acknowledgement fitting for the generosity and kindness shown to me by so many people. The list is too long, and even after making several lists, I fear I am forgetting someone, so if your name is not here, I hope that my gratitude has been shown throughout the years, to make up for it.

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for conducting their excellent research in Behaviour Sequence Analysis. A special thanks to Ellen Townsend, Ruth Wadman, Abbie Marono, Lucas Chesworth, Hayley Ellis, and Amina Kamal – whose work appears in this book. Thank you to Joe Navarro for your expert guidance and inspirational words. An extra special thank you to Enzo Yaksic and Sasha Reid for inviting me to collaborate with the Atypical Homicide Research Group and opening the door to sequencing serial homicide cases. Thank you also to Jon Zadra, for the help with programming in R, and the support throughout the years. A final thank you to the research assistants and students in ReBSA, who continually give up their time to help with the research and constantly make me strive to be a better supervisor.

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Finally, my thank you to *you* – the reader – for reading this book and giving it a chance. I hope you find something in here that gives you inspiration to conduct your own sequence analysis research and I look forward to seeing the next steps of Behaviour Sequence Analysis.

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SERIES EDITOR'S INTRODUCTION

In this book Dr David Keatley presents the case for an approach that has largely operated under the radar: Behaviour Sequence Analysis (BSA). The author analyses it from a variety of angles and a case presented for why it should be used more centrally in Crime and Forensic Psychology research and beyond. It starts with a discussion of the theoretical context of BSA and then moves on to provide a 'walkthrough guide' on how it can be used. The process is broken down into easy to follow steps. Indeed, the author warns against overcomplicating its use. That said time is devoted to the ways in which a range of data sources and approaches can be used to inform analysis, including some of the more complex ones for example T-System Analysis and Indicator Waves.

BSA is more than a research tool, it can help detect deception, for example in police interviews, so is an aid to the investigation and prosecution of offenders. In fact the flexibility of the approach, both in terms of the sources that can be used to inform analysis and to the ways these can be used provide central themes of the book. Keatley discusses multiple research methods that can be used to link crimes which facilitate the potential to enhance crime linkage analysis.

Readers may find the case studies particularly interesting and informative providing both an account of BSA and insights into such varied topics as drink driving, self harming in prisons and sexual assault and rape cases.

Keatley draws upon both his own research with colleagues as well as that of other researchers.

For readers – like myself – who are interested in the overlaps between BSA and Script Analysis, Chap. 10 is especially interesting. Here Keatley includes a discussion as to how the two approaches are complementary, and how they differ. The example used here, on lone actor terrorism, is instructive.

At the end of the book the author looks at questions and answers as to how BSA can be developed to be more useful in applied settings, in research obviously but also in the investigation and prosecution of crime. In the final analysis one can feel that we have been somewhat remiss in not recognizing its considerable potential to inform research and policy. Hopefully this book will inspire further critiques and generate broader debate; after all when it comes to tackling crime we need all the help we can get.

January 2018

Martin Gill