

Complicate, Clarify, Extend, Illustrate: key moves in academic writing

Chris Werry

The Create A Research Space (CARS) Model, by John Swales

According to Swales, research writers frequently use 4 rhetorical moves to create a context for their work.

1. They demonstrate the interest or importance of the research topic (exigency)
2. They selectively synthesize and review previous work
3. They show there is some kind of gap, shortcoming, or limitation in existing work, or that some extension or verification is required.
4. They show how their work resolves the gap, shortcoming, or limitation in existing work, that it successfully extends or verifies past research (in the humanities far more emphasis may be placed on complication and problematizing as ends in themselves –see Susan Peck MacDonald).

Research Writing in the Social Sciences/Humanities Often Involves:

1. Focus on a central problem or question
2. An argument for the “significance,” interest or centrality of the problem/question of study to the research community
3. Citations that reference previous relevant research, establish an “insider ethos” and show you are aware of relevant previous research
4. Reviewing previous relevant research (if appropriate)
5. Showing how your research makes a contribution by developing, extending, corroborating, problematizing, exposing weaknesses, etc. existing research
6. Rebuttal of competing/rival research

Situating claims in relation to previous research/texts¹

1. Previous research or ways of approaching this topic are completely wrong: 'My research/approach is completely original--doesn't link up with any tradition.'
2. Previous research or ways of approaching this topic are mostly wrong: 'My research/approach is highly original--quite different from what has gone before.'
3. Previous research or ways of approaching this topic are somewhat wrong: 'My research/approach both fits in with tradition and departs from it in important ways.'
4. Previous research or ways of approaching this topic are not wrong, but have missed/ignored some things: 'My research/approach fills in the gaps left by previous research/approaches'.
5. Previous research or ways of approaching this topic are essentially right, but can be extended: 'My research/approach is an extension of well established tradition.'
6. Previous research or ways of approaching this topic are right and flawless: 'My research/approach is not original, but it replicates/lends support to previous research'.

¹ From 'References to Other Researchers in Literary Research Articles', by Sally Jacoby, *English Language Research Journal*, 1 (1987): 33-78.

Some Research & Analysis Strategies – They Relate to Extend, Complicate, etc.

1. Verify an existing idea/theory.
2. Apply an existing idea/theory.
3. Extend an existing idea/theory – develop the idea or show how it applies to some new area.
4. Take an idea/theory from an existing field and apply to a new context (“emergence” in social theory; adaptation in biology; networks in the study of social relations; computation in the study of cognition, etc.)
5. Find counterexamples or shortcomings to suggest that an existing idea/theory needs to be qualified or revised. Focus on a prediction, implication, assumption, claim, chain of reasoning, use of evidence, etc.
6. Find counterexamples or shortcomings to suggest that an existing idea/theory is seriously flawed, and a paradigm may need to be abandoned. Focus = Critique.
7. Find counterexamples or shortcomings to suggest that an existing idea/theory is seriously flawed, and suggest an alternative.
8. Synthesize and clarify work in some research area – provide an overview of competing or related work.
9. Synthesize and clarify work in some research area – provide an overview of competing or related work and analyze strengths and weaknesses.
10. CARS model – centrality claim, gap, review of research, announce purposes, research, etc.

Swales’ Model of Rhetorical Moves in Research Articles (CARS)

The Create A Research Space (CARS) Model, by John Swales

Move 1 Establishing a territory

- Step 1 Claiming centrality and/or
- Step 2 Making topic generalization(s) and/or
- Step 3 Reviewing items of previous research

Move 2 Establishing a niche

- Step 1A Counter-claiming or
- Step 1B Indicating a gap or
- Step 1C Question-raising or
- Step 1D Continuing a tradition

Move 3 Occupying the niche

- Step 1A Outlining purposes or
- Step 1B Announcing present research
- Step 2 Announcing principal findings
- Step 3 Indicating Research Article structure

Journal Abstracts: Metacommentary & CARS moves

Abstract: In this essay, I argue for four related claims. First, Richard Levins' classic "The Strategy of Model Building in Population Biology" was a statement and defense of theoretical population biology growing out of collaborations between Robert MacArthur, Richard Lewontin, E. O. Wilson, and others. Second, I argue that the essay served as a response to the rise of systems ecology especially as pioneered by Kenneth Watt. Third, the arguments offered by Levins against systems ecology and in favor of his own methodological program are best construed as "pragmatic". Fourth, I consider **limitations** of Levins' arguments given contemporary population biology. (The strategy of "The strategy of model building in population biology" Jay Odenbaugh *Biology & Philosophy* (2006) 21:607–621)

Keywords: Richard Levins □ Robert MacArthur □ Population biology □ Ecology □ Systems ecology □ Model Building □ Tradeoffs

Sample phrases used in different parts of the CARS Model²

Move 1: Establishing a territory

Move 1, Step 1: Claiming Centrality

The writer states that the topic of research is useful, relevant, important, or worth investigating since it forms part of a lively, significant or well-established research area.

Recently, there has been wide interest in ...
In recent years, there have been many papers describing...
In recent years, researchers have become increasingly interested in ...
The possibility of X has generated interest in

The time development is a classic problem in fluid mechanics.
The explication of the relationship between is a classic problem of
Knowledge of has a great importance for
The study of has become an important aspect of ..
The theory that ... has led to the hope that ...
The effect of has been studied extensively in recent years.
Many investigators have recently turned to

The relationship between has been studied by many authors.
A central issue in is the validity of
The relationship between...is a classic problem in...
A long-standing problem has been to obtain more information on...

Move 1, Step 2: Making Topic Generalizations

These consist of statements concerning the current state of either knowledge, consensus concerning practice, or description of phenomena. Topic generalizations are often in the present tense.

The aetiology and pathology of ... is well known
There is now much evidence to support the hypothesis that ...
It is generally accepted that...
The properties of ... are still not completely understood
A standard procedure for assessing has been ...
Education core courses are often criticized for
English is surprisingly poor in related words....
There are as yet few situations where
The general features of... are well known.
Plumage coloration is known to influence mate selection in mallards.
Trout are believed to be relatively immobile.
There is now much evidence to support the hypothesis that...
A standard procedure for assessing...has been...
It is commonly suggested that...
Comparisons of spatially separated populations tend to consist of...
...is a common finding in patients with...
An elaborate system of...is found in the...

² Based on materials in Swales, Swales & Feak, and on Ken Pennington's CARS online resources at <http://butler.cc.tut.fi/~penningt/multimaker/cars.html>.

Move 1, Step 3: Reviewing Items of Previous Research

The writer relates what has been found (or claimed) with who has found it (or claimed it). This step often includes reference the name and data of an author's work.

- Brie (1988) showed that the moon is made of cheese
- Brie's theory (1988) claims that the moon is made of cheese
- Brie's (1988) theory of lunar composition has general support
- Previous research has shown that the moon is made of cheese (Brie, 1988).
- The moon is probably made of cheese (Brie, 1988)
- The moon may be made of cheese (but cf. Rock, 1989)
- Data have been presented in the literature which show that... (Brie, 1988).

Move 2: Establishing a niche

Move 2, Step 1a - Counterclaiming

This step often follows Move 1-Step 3 (Reviewing Items of Previous Research) and is used to introduce an opposing viewpoint or show the weaknesses in previous research.

- However, this view is challenged by recent data showing...
- However, these studies have failed to recognize the...
- However, recent work in our laboratory suggests that...
-, yet these approaches become increasingly unreliable when...
- Although these experiments....., they were performed on...and are therefore suspect.

Move 2, Step 1b - indicating a gap

This step typically follows Move 1-Step 2 (Making Topic Generalizations) and indicates an unfilled research niche or a new way to approach the research problem that the writer intends to pursue.

- A considerable amount of research has been... but little research has...
- X...has been extensively studied. However, less attention has been paid to...
- As a result, no comprehensive theory appears to exist.
- Despite the importance of..., few researchers have studied...
- Research has tended to focus on...rather than...
- The only reported study to date of...covered a limited range of...
- ...studies have appeared previously in the literature, but measurements were restricted to...
- The properties of...are still not completely understood.
- Evidence on this question is presently inconclusive.
- However, the previously mentioned methods suffer from some limitations*
- The first group *cannot treat* and is *limited to* ...
- The second group is *time consuming* and therefore *expensive*, and its is *not sufficiently accurate*.
- Both *suffer from the dependency on*
- The ... method (upon which the present study is based) eliminates many of these limitations by, *but it can treat only* ...

Move 2, Step 1c: Question-raising

This is where the author raises questions about the adequacy of previous research.

- However, it is not clear whether the use of...can be modified to...
- In spite of these early observations, the mechanism...has remained unclear.
- The question remains...?
- How much has the seal population actually decreased?

Move 2, Step 1d: Continuing a Tradition

This is where the author indicates the need for further research, discusses the need to extend or develop an existing school of research, or argues for the need to investigate further the implications of research.

- These differences need to be analyzed...
- Hence, additional studies of...are needed.
- It is desirable to carry out surveys of...
- It is of interest to compare.....

Move 3 - Occupying the niche

Move 3, Step 1b - Outlining Purposes

This is where the author outlines the main purpose of his/her research (not to be confused with language used to describe previous or other researchers work) This paper argues that

- In this paper, we argue that ...
- The purpose of this investigation is to
- The purpose of this investigation was to ...
- The aim of the present study is to elucidate...
- The major objectives in this study were to quantify...

Move 3, Step 1a: Announcing present research

This step represents an alternative strategy to that used in Step 1B. Here, the writer describes what s/he considers to be the main features of the research.

- In the present research, we shall examine...
- In this paper, we investigate...
- In this study, the... was investigated by means of...
- To evaluate the hypotheses that..., we examined...
- To better understand..., we investigated...
- Our focus will be on...
- Our two research questions were...
- This paper reports on the results obtained from...
- This paper presents data on the results obtained from...
- This study is concerned with...
- The present study tested... and measured...

Move 3, Step 2: Announcing Principal Findings

This is where the author focuses on the results and/or data obtained in the research.

- In this paper, we show that...
- Here, we report a new method for...
- This paper hopes to show that...

Move 3, Step 3: Indicating Research Article structure

This is where the author comments on the organization of the article, telling the reader what to expect.

- We have organized the rest of this paper in the following way ...
- This paper is structured as follows
- The remainder of this paper is divided into five sections. Section II describes...

Sample Research Journal Abstracts & the CARS Moves

Use the CARS model to identify the rhetorical moves made in the extracts below.

A) YOUTH & POPULAR CULTURE

“Adolescent Ambiguities In *American Pie*: Popular Culture as a Resource for Sex Education.” Catherine Ashcraft. *Youth & Society*, Vol. 35 No. 1, September 2003 37-70

1. Popular culture is a key site in the formation of teen knowledges about sex.
2. Yet formal sex education programs have largely ignored this arena.
3. In this article, the author proposes the need to critically incorporate popular culture into sex education efforts to develop programs that resonate with teens’ experiences and, at the same time, allow them to construct more equitable social relations.
4. The author illustrates how this might be done through an analysis of the recent teen film *American Pie*.
5. In addition, the author identifies specific implications and resources for broader theoretical efforts to reconstruct discourses of masculinity, femininity, and sexuality.

B) INTERNATIONAL BUSINESS

“A Framework for Culture Assessment.” Tomasz Lenartowicz; Kendall Roth. *Journal of International Business Studies*, Vol. 30, No. 4., pp. 781-798.

1. Understanding the nature and influences of culture is central to international business.
2. Such inquiry presupposes knowing that the cultural grouping(s) of a study is a valid unit of analysis, which is critical in that the estimation of culture effects can vary based on the unit definition.
3. Unfortunately, perhaps out of convenience, international studies often simply use a country-based definition of culture.
4. In a desire to facilitate further development in understanding culture effects, in this paper, we propose a framework by which valid cultural groupings may be assessed.

C) BUSINESS/HUMAN RELATIONS

“The future of the business school: Knowledge challenges and opportunities.” Ken Starkey and Sue Tempest, *Human Relations*, Vol. 58, No. 1, 61-82 (2005).

1. Despite its importance, there is relatively little serious academic research into the business school.
2. This article sets out to stimulate debate that will fill this gap.
3. We review the origins and evolution of the business school and debates about management research and teaching in terms of ideals and practice.
4. Increasingly, the role of the business school is being questioned but much of this debate looks at the business school in isolation from changes in the wider university sector.
5. We situate our analysis within the broader context of debates about the university as a privileged knowledge space.
6. We conclude by suggesting that the future of the business school can best be discussed in terms of changes in knowledge production and that the business school has the opportunity to position itself as a unique site of knowledge generation and diffusion.

D) MEDIA STUDIES

1. Although the media effects literature was precocious in its development, appearing almost as soon as the object of its study, researchers have focused on a relatively narrow array of effects.
2. Examples include the effects of violent, pornographic, and sexual content in the media and minority stereotyping.
3. This review demonstrates the need for researchers to construct stronger theories and conduct more programmatic research on another important, yet often ignored, media effect -- the effect of ideal televised images on females' perceptions of, and satisfaction with, their own bodies.
4. To accomplish its purposes, the paper begins with a review of the body image literature, including a discussion of current televised representations of female bodies and their effects on body satisfaction.
5. Next, the paper argues that researchers should refer to two prominent media effects theories (cultivation theory and social cognitive theory) to better understand the process by which television influences body image.

E) MARKETING/BUSINESS

“‘Do the Right Thing:’ Diverging Effects of Accountability in a Managerial Context”

Christina L. Brown. *Marketing Science* Vol. 18, No.3, 1999, Pp. 230-246.

1. The need to justify one's decisions is a signal characteristic of decision-making in a managerial environment. 2. Even chief executives must communicate reasons for their actions. 3. Yet, despite a significant amount of laboratory research on the effects of accountability on decision-making, few studies have attempted to assess what affects accountability might have outside the lab for actual managers. 4. In this paper, we use as subjects actual members of the professional account, research, and creative staffs of several advertising agencies in an experimental simulation of an advertising copy meeting. 5. We demonstrate that accountability effects in complex, managerial decision contexts diverge considerably from those found in the lab.

F) Social Policy 1. The author believes that violence by women has been ignored in research and social policy because of society's refusal to acknowledge that women, especially mothers, can be aggressive. 2. In addition, most of the offenses committed by women are private events and are believed to be underreported to authorities. 3. The author presents a psychodynamic perspective of female violence, explaining it as an expression of frustration and anger rooted in childhood experiences of abuse and neglect. 4. Violent behavior is described as female perversion, an act in which women use their bodies to assault images of motherhood in an attempt to resolve some type of psychological problem. 5. The text highlights the failure of social services to recognize the long-term effects of abuse on children and advocates for greater efforts to prevent victims from becoming offenders. 6. Case studies provide examples of violent acts perpetrated by women against their children, themselves, and their batterers. 7. Female sexual abuse, Munchausen's syndrome by proxy, maternal physical abuse, and infanticide are discussed.

G) English For Specific Purposes (1.) Despite an explosion in the number of students writing graduate theses in a language other than their first, there are very few accounts, either of research into the difficulties encountered by these students, or of writing programs designed to help such students present dissertations written to an acceptable standard. (2) This article describes and evaluates a program developed within the English Centre at the University of Hong Kong to assist students who are required to present dissertations in English. (3) The program was based on data collected from detailed interviews with graduate supervisors and a survey of graduate students, as well as an analysis of extended pieces of graduate writing.”

H) Communication Studies 1. Although much criticism of alcohol advertising has focused on the youth and underage drinking, targeted marketing of alcohol beverages towards minorities and women has created much controversy in recent years yet is much less understood. 2. Content analyses of four consumer magazines from 1979-1992 reveal significant variations in the amount of alcohol advertising, product types, advertisement features, and advertising appeals. 3. The findings suggest that alcohol advertising is more concentrated in minority magazines, and different products are targeted toward minorities and women with distinct advertising techniques. 4. Consumer education and health communication programs need to increase their effort to reach minorities and women and adopt customized social marketing strategies.

Tammy's Abstract: the Classic IMRD moves (sciences and social sciences.)

Pharmacists and Natural Health Products: A systematic analysis of professional responsibilities in Canada. Jennifer FARRELL, Nola M. RIES, Heather BOON.

Abstract: Natural health products such as herbs, vitamins and homeopathic medicines are widely available in Canadian pharmacies.

Purpose: to conduct a systematic analysis of Canadian pharmacy policies and guidelines to explore pharmacists' professional responsibilities with respect to natural health products.

Methods: Legislation, codes of ethics, standards of practice and guidance documents that apply to the practice of pharmacy in each Canadian jurisdiction were systematically collected and examined to identify if, and how, these instruments establish professional duties in regard to natural health products.

Results: The majority of Canadian jurisdictions now include some explicit reference to natural health products in standards of practice policy or guideline documents. Often natural health products are simply assumed to be included in the over-the-counter (OTC) product category and thus professional responsibilities for OTCs are relevant for natural health products. A minority of provinces have specific policies on natural health products, herbals or homeopathy. In addition, the National Association of Pharmacy Regulatory Authorities' Model Standards of Practice specifically refers to natural health products. Most policy documents indicate that pharmacists should inquire about natural health product use when counselling patients and, when asked, should provide accurate information regarding the efficacy, toxicity, side effects or interactions of natural health products. Public messaging also indicates that pharmacists are knowledgeable professionals who can provide evidence-based information about natural health products.

Conclusions: Explicit policies or guidelines regarding pharmacists' professional responsibilities with respect to natural health products currently exist in the majority of Canadian jurisdictions.

“Selling sickness: the pharmaceutical industry and disease mongering.” Ray Moynihan, Iona Heath, David Henry. *British Medical Journal* 2002;324:886-891 (13 April)

Selling sickness: the pharmaceutical industry and disease mongering

There's a lot of money to be made from telling healthy people they're sick. Some forms of medicalising ordinary life may now be better described as disease mongering: widening the boundaries of treatable illness in order to expand markets for those who sell and deliver treatments.^{1 2} Pharmaceutical companies are actively involved in sponsoring the definition of diseases and promoting them to both prescribers and consumers. The social construction of illness is being replaced by the corporate construction of disease.

Whereas some aspects of medicalisation are the subject of ongoing debate, the mechanics of corporate backed disease mongering, and its impact on public consciousness, medical practice, human health, and national budgets, have attracted limited critical scrutiny.

Within many disease categories informal alliances have emerged, comprising drug company staff, doctors, and consumer groups. Ostensibly engaged in raising public awareness about underdiagnosed and undertreated problems, these alliances tend to promote a view of their particular condition as widespread, serious, and treatable. Because these "disease awareness" campaigns are commonly linked to companies' marketing strategies, they operate to expand markets for new pharmaceutical products. Alternative approaches emphasizing the self limiting or relatively benign natural history of a problem, or the importance of personal coping strategies are played down or ignored. As the late medical writer Lynn Payer observed, disease mongers "gnaw away at our self-confidence."²

Although some sponsored professionals or consumers may act independently and all concerned may have honourable motives, in many cases the formula is the same: groups and/or campaigns are orchestrated, funded, and facilitated by corporate interests, often via their public relations and marketing infrastructure.

A key strategy of the alliances is to target the news media with stories designed to create fears about the condition or disease and draw attention to the latest treatment. Company sponsored advisory boards supply the "independent experts" for these stories, consumer groups provide the "victims," and public relations companies provide media outlets with the positive spin about the latest "breakthrough" medications.

Inappropriate medicalisation carries the dangers of unnecessary labelling, poor treatment decisions, iatrogenic illness, and economic waste, as well as the opportunity costs that result when resources are diverted away from treating or preventing more serious disease. At a deeper level it may help to feed unhealthy obsessions with health,³ obscure or mystify sociological or political explanations for health problems,⁴ and focus undue attention on pharmacological, individualised, or privatised solutions.³ More tangibly and immediately, the costs of new drugs targeted at essentially healthy people are threatening the viability of publicly funded universal health insurance systems.⁵

Recent discussions about medicalisation⁶ have emphasised the limitations of earlier critiques¹ of the disabling impact of a powerful medical establishment. Contemporary writers argue that the lay populace has become more active, better informed about risks and benefits, less trusting of medical authority, and less passively accepting of the expansion of medical jurisdiction into their bodies and lives. Although these views may herald a more mature debate about medicalisation, the erosion of trust in medical opinion reinforces the need for wide public scrutiny of industry's role in these processes.

In this paper we do not aim for a comprehensive classification or definitive description of disease mongering, but rather we draw attention to an important but under-recognised phenomenon. We identify examples, taken from the Australian context but familiar internationally, which loosely represent five examples of disease mongering: the ordinary processes or ailments of life classified as medical problems;

mild symptoms portrayed as portents of a serious disease; personal or social problems seen as medical ones; risks conceptualised as diseases; and disease prevalence estimates framed to maximise the size of a medical problem. These groups are not mutually exclusive and some examples overlap.