

ON RELATIVE *WHICH* WITH PERSONAL REFERENCE

GÖRAN KJELLMER

Göteborg University

1. Problem

It frequently happens that one's belief in the relatively stable character of the English grammatical system receives a jolt, sufficiently often, indeed, for one to risk losing faith in that property of the language altogether. When for example a spokesman for the US State Department says:

- (1) General Lebed would be a much more difficult partner with which to deal.¹

or when Tony Blair says

- (2) These refugees, which you have seen here in America, ...²

the simple rule that relative *which* is used with nonpersonal reference in English does not seem to apply across the board. According to traditional rules of grammar one would have expected both gentlemen to say *who(m)* rather than *which*. While it is true that relative *that* and relative zero can replace both *who* and *which* in restrictive clauses:

the man *who(m)* you saw vs. the man *that/Ø* you saw
the book *which* you read vs. the book *that/Ø* you read

relative *who* and *which* cannot normally replace each other:

¹ Swedish television programme "Rapport" of 27.10.95

² CNN 22.4.99

the man who(m) you saw vs. *the man which you saw
 the book which you read vs. *the book who(m) you read

Who and *which* both occur in restrictive as well as nonrestrictive clauses, with personal reference as the main distinguishing factor.³ Why then, to come back to our two speakers, both speaking an educated kind of modern English, did they say *which* instead of *who(m)*? Mair (1998) is an interesting paper in this area. Mair shies away from “even a partially exhaustive analysis of the material”. His strategy (1998: 126) is “to look for combinations of frequent nouns denoting humans followed by *which* and to spot-check for sequences such as *of which there [is / are]*”. He asks whether the use of *which* with a human antecedent should be seen as evidence of a linguistic change in progress, but concludes that it is not. From a more general point of view, the matter could be worth a short study with a slightly different approach.⁴

Relative clauses can of course be introduced by other items than the ones mentioned above, such as the nominal *what*, *whoever*, etc., but for our present purpose we shall focus on *which* with personal reference (and only touch in passing on the contrasting case of *who* with nonpersonal reference). To look into the question we shall make use of material from the Cobuild Corpus, consisting of 56 million words from the Bank of English. This is a tempting thing to do, as even a brief look at the corpus material seems to suggest that the demarcation of the *which* area is somewhat fuzzy in that the antecedents that take *which*, far from being uniformly nonpersonal, seem possible to range along a continuum stretching from nonpersonal to personal. In the following we shall take a look at different types of relative *which* constructions in order, first, to see if we in fact have to do with a scale phenomenon and secondly, if the answer is yes, attempt to characterise the factors that determine the position of the various categories on that scale. It is hoped that the outcome will reveal some general governing principles.

2. Ambiguity evaded

“Concord is on the basis of a two-term ‘gender’ system, personal and nonpersonal”, say Quirk *et al.* (1985: 1245) with reference to the relative sphere, and the distinction between personal and nonpersonal reference can be seen to have great functional advantages. It is often unclear which out of a number of preceding elements, mostly noun phrases, is the intended antecedent of a relative clause. For instance, in sentences like

They invited John and his son who they had just happened to meet.
 and

She noticed the lining of his coat which was torn and dirty.

one cannot tell whether the antecedent is *John and his son* or just *his son* in the first sentence, and *the lining of his coat* or just *his coat* in the second. Such ambiguous cases are highly frequent and can occasionally be embarrassing and/or misleading. However, when the candidates for antecedence differ with regard to type of reference, ambiguity does not (or need not) arise. In

- (3) there’s a famous er sort of diagram or description <ZF1> of <ZF0> of any speech act formulated by the great linguist Roman Jakobson great structuralist Roman Jakobson which I’ve put up on the board
 Corpus: ukspok/04. Text: S000000342.
- (4) From the entries in his mother’s diary and from the extensive exchange of letters between both parents and various members of the family, which have been available since 1966, it is possible to guess at the small boy’s painful path.
 Corpus: usbooks/09. Text: B9000001381.

the choice of *which* rather than *who* indicates that it is not *the great structuralist Roman Jakobson* but rather *a famous sort of diagram or description of any speech act formulated by the great structuralist Roman Jakobson* that is the intended antecedent in the first sentence. For the same reason, it is not *various members of the family* or *both parents and various members of the family* that is the intended referent in the second sentence but *letters between both parents and various members of the family*. (The verb form shows that it cannot have been *the extensive exchange ... family*.) In such events, context makes in any case the risk of ambiguity almost negligible. But context is not always decisive or helpful. In cases where context would have been of little help on its own, the choice of relativiser such as *which* may pinpoint the antecedent:

- (5) So the world that we all belong to is this second world of fallen man <tc text=pause> but then there’s a hope of a new kind of less sinful consciousness to come our hope in Christ which will hopefully lead us to this paradisaal world where we can get ready to put on our wings and strum on our harps.
 Corpus: ukspok/04. Text: S000000160.

³ Quirk *et al.* (1985: 366).

⁴ I would like to thank Arne Olofsson for his comments on an earlier version of this paper.

- (6) As Mandela put it in his parliament speech – in a passage that encapsulated much of the brilliance of this great man, in which tact, diplomacy, principle, wisdom and magnanimity go so well together:
Corpus: ukmags/03. Text: N0000000419.
- (7) The birthday of the squat, gravel-voiced, former chainsmoker went unmarked in state media in line with Mr Deng's abhorrence of personality cults such as the adulation of Chairman Mao Ze-dong which led China along disastrous revolutionary roads.
Corpus: oznews/01. Text: N5000950823.

The use of *which* in (5) shows that it is not Christ that will lead us to Paradise but that our hope in Christ will do so; similarly, its use in (6) indicates, not that tact, diplomacy, *etc.*, go well together in Mandela, but that those qualities go well together in his brilliance. The difference may not seem very great, but the analogous difference in (7) is crucial. There the writer is not saying that Chairman Mao led China along disastrous revolutionary roads, but that the adulation of Mao did so.

It appears, then, that this association of *which* with nonpersonal (and *who* with personal) antecedents serves a useful purpose. The strength of this association is emphasised by Biber *et al.* (1999: 8.7.1.3):

[T]he relative pronoun *which* rarely occurs with an animate head. Although *which* is attested in conversation as a relative pronoun with animate heads, this occurs so rarely that it might be considered a speech error...

They estimate (1999) that relative clauses with human head nouns take *which* in less than 1 per cent of the cases in their corpus material. Nevertheless, as was indicated above, the situation is less than clear. In what follows we shall therefore consider different types of antecedents of *which*, moving from the most nonpersonal to the most personal.

3. Concrete inanimate nouns

As will be expected, this type represents a very large number of *which* antecedents in the Corpus. One example may suffice to illustrate it. Cases like the following abound:

- (8) Leeson "named names" in the *book which* is about half-finished.
Corpus: today/11. Text: N6000951014.

No instances of this type of antecedent have been found with *who*.

4. Abstract nouns denoting acts or doings of human beings

One small step away from the previous category in the direction of animacy, and from there to "personalness", is the one where the antecedent is an abstract noun representing some kind of human action and the verb of the relative clause suggests human agency:

- (9) Winckelmann's *theories* in the 1750s, *which praised* its heroic and virtuous qualities.
Corpus: ukmags/03. Text: N0000000115.
- (10) the theatre *adaptation which played* to full houses at last year's Edinburgh Festival
Corpus: times/10. Text: N2000960213
- (11) The Fun Run *bombing* on June 15, 1988, *which killed* six soldiers after the IRA planted a device in the squaddies' van.
Corpus: sunnow/17. Text: N9119980614.
- (12) the budget *tax cuts* of 1988, *which gave* enormous increases in disposable income to the wealthy
Corpus: ukbooks/08. Text: B0000000854.
- (13) The appeal was dismissed by a *judgment* of October 31 1989, *which upheld* the lower court's decision in all respects.
Corpus: times/10. Text: N2000951101.
- (14) He'd written several books on legal theory and as a state court judge, had written *decisions which shaped* the law nationally.
Corpus: npr/07. Text: S2000900907.

Although there is a human element in the antecedents in such sentences (an inanimate object does not praise, *etc.*!), as abstract entities they are clearly nonpersonal. There are no *theories who*, *adaptation who*, *bombing who*, *etc.*, in the material; we are still on nonpersonal ground.

5. Nouns denoting commercial companies

This category and the next both contain collective nouns, the first one being more specific. The concept of "collective" is less straightforward than it may seem at first, as it can be, and has been, defined in either syntactic or semantic terms. Jespersen, for instance, defines collectives as "words which denote a unit made up of several things or beings which may be counted separately" (Persson 1989), and Levin (2001: 13), the latest scholar to discuss it to my knowledge, calls collective nouns "singular nouns denoting groups of entities and taking

plural targets”.⁵ It is clear from his study that collective nouns do not behave uniformly with regard to agreement. The category of commercial companies represents a small step towards animacy, “humanness” and “personalness” in relation to the previous category. Companies are mostly seen as abstract units and then take *which* and a singular verb:

- (15) Reference and children’s book *publisher Dorling Kindersley, which* comes to the stock market next month, ...
Corpus: today/11. Text: N6000920924.
- (16) MPC and Company, the loss *assessor which* is advising many of the claimants has set up an office in Milford Haven
Corpus: times/10. Text: N2000960227.
- (17) Asprey Antiques, the Bond Street *dealer which* holds warrants from the Queen Queen Elizabeth the Queen Mother and the Prince of Wales.
Corpus: times/10. Text: N2000951204.
- (18) “France is still in the teeth of a recession”, says Frank Rutherford, of Rutherfords, a Fulham *agent which* sells property in France.
Corpus: times/10. Text: N2000960320.
- (19) Contact Hargreaves Lansdown, the financial *adviser, which* is acting as retail broker, on 0800 850661.
Corpus: times/10. Text: N2000960324.
- We are now moving into more doubtful territory. The businesses can also be viewed as represented by human beings, which seems a likely interpretation of the fact that the same type of antecedents can take *who* as the relative pronoun, still with a singular verb:
- (20) Shop is sponsored by a different games *publisher, who* donates the prizes.
Corpus: today/11. Text: N6000940723.
- (21) the insurance *assessor who* was devalued
Corpus: oznews/01. Text: N5000950412.
- (22) Tommy Roberts, a London *dealer who* specialises in 20th-century culture currently has one of the Space Odyssey suites in his shop
Corpus: times/10. Text: N2000960106.

⁵ “Henceforth the phrase controlling agreement will be referred to as the ‘controller’, which is a convenient term for the heads of subjects and antecedents and other agreement sources. The term ‘target’ will be used to refer to the linguistic unit, for instance a verb or a pronoun, that agrees with some feature of the controller” (2001: 11).

- (23) I had been fortunate in purchasing the entire stores of a Jensen-Healey *agent who* was giving up the business
Corpus: ukmags/03. Text: N0000000895.
- (24) If you are considering annuities you should consult an independent financial *adviser who* will be able to assess your situation
Corpus: oznews/01. Text: N5000951004

6. Nouns denoting bodies of people

An adjacent category is again one where the antecedent is represented by a collective noun in the singular, i.e. one where the individual members are all seen as making up the whole of the collective, this time in a more general sense. Quirk *et al.* (1985: 1246) discuss this type:

Collective nouns ... are normally treated as personal when they have plural concord (esp in BrE), and as nonpersonal when they have singular concord:
The committee *who were/which* was responsible for this decision ...

Some examples of this type of *which* “junctions”⁶ from the Corpus are these:

- (25) It may be a sign of changing mood by an *electorate which* thinks reforms have gone far enough
Corpus: oznews/01. Text: N5000951103.
- (26) He is tackling a privileged *elite which* has always regarded itself as above criticism.
Corpus: sunnow/17. Text: N9119980603.
- (27) The British royal *family, which* is now routinely described as dysfunctional, is widely misunderstood.
Corpus: npr/07. Text: S2000921207.
- (28) the hard line Christian *militia which* enjoys exclusive control of East Beirut dug its heels in and the plan had to be delayed.
Corpus: bbc/06. Text: S1000901102.
- (29) the Mujahidden shelling amounts to yet another headache for the *military which* is also fighting in the west and south.
Corpus: bbc/06. Text: S1000901102.
- (30) The clear winner is Israel’s Arab *minority, which* has often been seen as suspect by Israeli Jews and as traitors by the rest of the Arab world.
Corpus: oznews/01. Text: N5000950525.

⁶ Olofsson’s (1981) term for the antecedent + relative clause.

As shown by Quirk *et al.* (1985), such collectives can be treated as personal, i.e. take *who*, and have plural concord. Note the difference from the previous subgroup:

- (31) Politicians, responsive to the concerns of an *electorate who demand*, and deserve, retribution for uniquely heinous crimes can act as the guardians of popular feeling when determining punishment.
Corpus: times/10. Text: N2000960222.
- (32) Dwight was trying to reach the educated *elite who were* versed in the classics from Chaucer to the present and held a common cultural tradition.
Corpus: usbooks/09. Text: B9000001363.
- (33) A fine offers no comfort to the *family who have* lost their husband and father
Corpus: today/11. Text: N6000920623.
- (34) government forces are this weekend preparing to take on Taliban Islamic *militia who are* moving in on Kabul.
Corpus: times/10. Text: N2000960324.
- (35) Up to now, the former Soviet *military, who are* still stationed in Tajikistan under the Commonwealth of Independent States command, have stayed out of the conflict.
Corpus: npr/07. Text: S2000920506.
- (36) It was spoiled by the *minority who were* leaving rude messages.
Corpus: sunnow/17. Text: N9119980402.

It may not be surprising to find that the two patterns are sometimes mixed up:

- (37) I'm quite certain we should never underestimate the Iraqi *army who's had* eight years war experience
Corpus: bbc/06. Text: S1000901102.
- (38) If you belong to the *minority who does* not fancy using products that you suspect may be contaminated ...
Corpus: ukbooks/08. Text: B0000001178.

7. Plural nouns regarded as groups

The next step towards "personalness" is again a short but significant distance from the previous one. In that group there were formally singular collective nouns referring to a number of individuals, all uniformly part of the collective. An extension of this category is that where we still have a number of individuals, all uniformly part of the same total, but where we no longer have a collective noun; that is, the "formally singular collective" condition is relaxed. In

other words, we have plural noun antecedents which take plural verbs, but whose relative pronoun is *which* instead of the normally occurring *who*. The last factor, I would suggest, is an indication that the plural noun has a unifying function, just as it has in the preceding collective type. At the same time, the plural form of the noun and its plural verbal concord adds a notable element of "personalness". This type is quite frequent in the Corpus, and does not seem to be noticed in the standard grammars of English. (Cf also (2)).

- (39) the local population there are *Mayans which are* lovely gentle softly-spoken very welcoming people
Corpus: ukspok/04. Text: S0000001664.
- (40) The Taleban has captured at least half of Afghanistan, riding what it says is a wave of public hostility towards rival *mujahideen which have* fought among themselves since overthrowing the former communist regime in April 1992.
Corpus: oznews/01. Text: N5000951016.
- (41) it's about thirty pence per ton <ZGY> cheaper than the same amount of mineral water. And that is one of the reasons of the drop in oil production for different *users which are* much more independent economically now
Corpus: ukspok/04. Text: S0000000394.
- (42) I saw bread made by their *women which do* all their drudgery. The men take their pleasure in hunting and their wars, which they are in continually one kingdom against another.
Corpus: usbooks/09. Text: B9000001417.
- (43) he's got er his *cousins which are* little bit older than him.
Corpus: ukspok/04. Text: S9000001385.
- (44) when *some* of the inhabitants *which were* our friends, and especially the Wiroans Wingina, had observed such effects in four or five towns to follow their wicked practices, they were persuaded that it was the work of our God
Corpus: usbooks/09. Text: B9000001417.
- (45) So it seems likely that it is these *people which* are behind the invasion, and indeed are flocking to support it, as the Ugandans have been reporting large numbers of desertions from their army across the border.
Corpus: bbc/06. Text: S1000901003.
- (46) I sit there and I look at the *people which are* around it and what they're worth financially and wonder how long are they going to spend their time.
Corpus: ukspok/04. Text: S9000000886.

- (47) Now <ZF1> there is a <ZF0> there is a peer group of theirs and then the next peer group are *Bengali which go* from say twenty twenty-one down to fifteen sixteen well they go right down
Corpus: ukspok/04. Text: S9000000886.
- (48) the Catholic Archbishop of Trinidad and Tobago, Archbishop Pantin, has been negotiating with the attempted coup leader Abu Bakr. The ambassador said Bakr is threatening to blow up the *hostages which include* the prime minister and the attorney-general, unless the troops are removed from the parliament building.
Corpus: bbc/06. Text: S1000900728.
- (49) The *Taleban, which* emerged from religious schools in Pakistan about a year ago, *have* vowed to occupy Kabul and evict Rabbani to make way for a purist Islamic state.
Corpus: oznews/01. Text: N5000951016

Occasionally this type of plural antecedent takes *which* and a singular verb:

- (50) Well the people who like us most are undoubtedly the *Americans which is* the largest single market.
Corpus: ukspok/04. Text: S0000001648.
- (51) Earlier a government spokesman blamed the bombing on *Taleban, which seeks* to topple President Burhanuddin Rabbani.
Corpus: oznews/01. Text: N5000951127

(In (50) the singular verb could be occasioned by the singular complement.) It is obvious that there is a clear personal semantic element in the antecedents of this type.

8. Singular nouns denoting posts or functions

There are a number of *which* cases where the antecedents denote persons but in a kind of deindividualised sense. We are clearly some way into the personal field now. The persons are seen as representatives of a group or as holders of certain posts or functions (and naturally take a singular verb). Quirk *et al.* (1985: 1246) refer to a related phenomenon: "*Which* can have a personal noun as its antecedent when the relative is a complement with the semantic role of characterization attribute...":⁷

⁷ Cf. Jacobsson (1970: 355): "*Which* is also found when the emphasis is on qualities or characteristics of individuals rather than the individuals themselves: The Colonel here is a portent – the new officer which is emerging from the old hide-bound British Army."

He imagined himself to be an artist, *which* he was not.

Here are some corpus examples:

- (52) Erm well I think <ZZ1> place name <ZZ0> had a community liaison *officer which* was one of the sort of second tier or w third tier posts er when they first set up in eighty-eight.
Corpus: ukspok/04. Text: S9000000693
- (53) If you are getting a cash benefit - except retirement pension - tell the *officer which* pays you that you are going abroad.
Corpus: ukephem/02. Text: E000000120
- (54) She sees a *paediatrician* erm now just yearly *which* is just checking her up but she also sees...
Corpus: ukspok/04. Text: S9000001275
- (55) I got a deputy *registrar which* was Mrs FX and then Mm. FX was but she died in office unfortunately.
Corpus: ukspok/04. Text: S0000000814
- (56) By the way in Battersea erm the first black *councillor which* <ZF1> r <ZF0> really he was an English black in Battersea in about the eighteen something.
Corpus: ukspok/04. Text: S9000000857.
- (57) "But if that doctor is not signed up with your health fund, you'll have to use the *doctor which* the [sic] specifies when you go to hospital", he said.
Corpus: oznews/01. Text: N5000950501.
- (58) So w I talked about the bursar so we appointed a bursar plus <ZF1> a f <ZF0> a full-time *secretary which* we upgraded to deal with all the office routine which freed me <F01> Mm. <M01> from that role.
Corpus: ukspok/04. Text: S0000001162.

The deindividualised character of such antecedents is clearly shown in examples like the following, where the anaphoric personal pronoun is *it* instead of *he* or *she*.

- (59) She's got an educational *psychologist which* is attached to <ZGY> now. *It* used to be attached to Portage <F01> Mhm
Corpus: ukspok/04. Text: S9000001275

9. Babies and children

It would have seemed natural to view babies and children, in their capacity as antecedents of a relative clause, as always falling in the personal area. Nevertheless, "human babies can be regarded (though rarely perhaps by their parents) as

not having developed personality”, as Quirk *et al.* (1985: 1245) say, which is apparently true for human children as well. Biber *et al.* (1999: 8.7.1.3) show “that *child* can be used non-personally, as if children are treated more like objects than persons”. Both *baby/ies which* and *child/ren which* are well represented in the Corpus material; here is a sample:

- (60) Victoria Wicks, the snooty newsreader in the hit TV comedy *Drop The Dead Donkey*, told yesterday how she said farewell to the tragic *baby which* almost killed her. ... She nearly died during the first miscarriage.
Corpus: today/11. Text: N6000920210.
- (61) But she has now returned to live at her mother’s home in Yorkshire for the sake of their *baby, which* is due in the autumn.
Corpus: today/11. Text: N6000920425.
- (62) It was the *baby which* had changed everything for them.
Corpus: today/11. Text: N6000920623.
- (63) Icke has seen his daughter only once, two days after her birth, and has now fathered a third *child* with Linda *which* is due around Christmas.
Corpus: today/11. Text: N6000920525.
- (64) And I’ve got six *children one of which* is handicapped but she’s still taught French.
Corpus: ukspok/04. Text: S0000000048
- (65) to have to clean their genitals as <ZGY> Mm. Mm. and you do that <ZF1> as a <ZF0> as a mother and you even do it with *children which* you don’t know <ZF1> or <ZF0> or *children which* are not your biological children in the way <ZF1> that <ZF0> that you wouldn’t expect a male partner to do it
Corpus: ukspok/04. Text: S9000000685.

The normal relative pronoun with both *baby* and *child* is *who*.

10. Singular nouns denoting individuals

The last step takes us right into the personal area. Here there can be no question of the antecedents being general or deindividualised; we are dealing with identifiable people, and people who are in most cases well-known to the speakers.⁸ (MX and FX stand for masculine and feminine proper name, respectively.)

⁸ Mair (1998: 133), in discussing his own invented examples “*Mr Smith, which we all know...” and “*Mr Smith, which lives next door”, says, “none of these structures is even remotely possible”.

- (66) I am the old the eldest and then er FX sister and then *my brother er MX which* is er living he lives not very far from here in Talbot Road.
Corpus: ukspok/04. Text: S9000000854.
- (67) after <ZF1> this <ZF0> this marriage had gone wrong I met MX and then MX and I lived together and then we had two children *FX and MX which* are the two children that are here Erm <tc text=sighs> and then that went wrong.
Corpus: ukspok/04. Text: S9000001326.
- (68) last year as I say I was in hospital because one of my kidneys had stopped working they removed the stones and sorted it and I was to see er get an appointment to see a *Mr MX which* was going to be another specialist there about why this had happened.
Corpus: ukspok/04. Text: S9000001326.
- (69) Erm in April *MX which* is your husband <F02> Yes <F02> <ZGY> had a slight stroke during the night.
Corpus: ukspok/04. Text: S9000001334.
- (70) I’m pretty sure it happened to Michelangelo, to da Vinci, and I saw my father do that, *my brother, which* was a professional carver. It’s happened to everyone, because when you hit the hammer, you mind may be for a split second someplace else
Corpus: npr/07. Text: S2000900928.
- (71) not only do you set off a round of strikes that get you, the ACTU and Labor about as much sympathy as Hugh Grant at a Hurley family reunion. <p> You also dredge up *that old butthead Hawke, which* is doing for the ALP what Princess Di does for the average marriage.
Corpus: oznews/01. Text: N5000951121.
- (72) They have no political rights. They’re daily the victims of what I must say is a misguided policy. <p> Lyden: And it was a policy, Hurd continued, which rested on abuse. <p> *Hurd which* believes that the security of Israel must rest on closed universities, illegitimate settlements on other people’s lands, and even collective punishments.
Corpus: npr/07. Text: S2000901005.
- (73) Hello Mike. Hello John. Yes Mike? I’s like to take issue with the under-age *drinker which* I’ve been listening to. <ZF1> I I <ZF0> I don’t agree with underage drinking.
Corpus: ukspok/04. Text: S0000000114.

Again it is obvious that the normal relativiser with this type of antecedent is *who*. It is notable that a large number of the above cases derive from spoken

sources.⁹ It is probably also significant that many of them savour of teenager speech habits:

- (74) I sometimes hang around with er year eight because my friend who I go to the O-zone with she's got a *sister which* is just y a year older and so we like go all out together so <F02> <ZGY> But she's in year eight
Corpus: ukspok/04. Text: S9000001239
- (75) there was the *boy which* j had just started smoking and <ZF1> I <ZF0> I don't know his name
Corpus: ukspok/04. Text: S9000001239.
- (76) I think that not all girls do that but I think most of them do j ã if <ZF1> the <ZF0> the *boy which* they like <tc text= laughs> smokes
Corpus: ukspok/04. Text: S9000001239.

Let us pause for a moment and take stock. We have seen that relative *which* predominantly occurs, as expected, in a nonpersonal environment, that is with a nonpersonal antecedent. But we have also seen that in addition to that it occurs in environments that can be more and more coloured by a personal element so that we even find it with unequivocally personal antecedents; such environments can be seen as ordered along a scale of "personalness". The question now is how one should explain this somewhat indeterminate situation. I would suggest that the explanation has to do with two closely related factors, one diachronic and one synchronic.

11. The diachronic (historico-dialectal) factor

The relative *wh*-pronouns developed in early Middle English times out of the corresponding interrogative pronouns, possibly under Latin and French influence. Mustanoja's (1960: 191-2) view of how this came about is worth quoting:

The development of the interrogatives into relatives seems to begin in certain types of indirect questions where the interrogative character of the pronoun has become weakened, its meaning approaching that of a generalising relative (e.g., *hi sceolon geseon æt þam miclan dome whæne hi gewundodon*, ...). The next stage is reached when the pronoun loses its interrogative character altogether and becomes a generalising relative. The final stage of this development is seen when the pronoun has a clearly definable antecedent and thus occurs in a strictly relative function.

⁹ Cf. Flexner (1987, sv. v. *which* 8): "Nonstandard. who or whom: a friend which helped me move; the lawyer which you hired."

Throughout the Middle English period relative *that* or *which* is used instead of the nominative *who* with reference to persons.¹⁰ This situation continues into Early Modern English times, where *which* is freely used with personal antecedents while *who* is occasionally used with non-personal antecedents. But in the course of the Early Modern period, there is a steady move in the direction of present-day English usage: *which* and *who* become increasingly confined to nonpersonal and personal antecedents respectively.¹¹ According to Görlach (1991: 125), *which* "predominated in all types of relative clauses in early sixteenth-century texts, but was only rarely used for persons after the AV of 1611." This type of usage is still recognised as used "in archaic forms of religious language".¹² It is represented in the Corpus, both in historical texts such as Shakespeare, as in

- (77) King: <f> Now must your conscience my acquittance seal, And you must put me in your heart for friend, Sith you have heard, and with a knowing ear, That *he which* hath your noble father slain Pursued my life.
Corpus: usbooks/09. Text: B9000001423.
- (78) Hamlet: Or of a *courtier, which* could say, 'Good morrow, sweet lord! How dost thou, sweet lord?'
Corpus: usbooks/09. Text: B9000001423.

and in clearly Biblical language:

- (79) It pleased God, after a while, to send those *people which* were our mortal enemies to relieve us with victuals, as bread, corn, fish, and flesh in great plenty, which was the setting up of our feeble men, otherwise we had all perished.
Corpus: usbooks/09. Text: B900000141
- (80) The new PC Bible, which refers to the lord as 'Our *Mother Father which* art in heaven'
Corpus: today/11. Text: N6000950909.
- (81) And he tempted me to write in his book which I Refused with loud cries and said I would not write in his book though he tore me all to pieces but told him that it was a dreadful thing, that *he which* was a Minister that should teach children to fear God should come to persuade poor creatures to give their souls to the devil.
Corpus: usbooks/09. Text: B9000001417.

¹⁰ Mustanoja (1960: 191-192)

¹¹ Barber (1996: 210).

¹² Greenbaum (1996: 188)

and perhaps

- (82) *Those which* are willing to do least themselves are most ready to slight and undervalue what is done by others.
Corpus: usbooks/09. Text: B900000141

It could be added that the use of a resumptive pronoun after the relative, which is found in Old English¹³ and is frequent in Middle English,¹⁴ also occurs in the modern spoken language:

- (83) all you're doing is hitting your *kid which* really *he* don't need hitting
Corpus: ukspok/04. Text: S9000001271.
- (84) my mam looked after *MX which* I told you *he* was about nine months old
<F01> Mm. <F02> <ZGY> little baby.
Corpus: ukspok/04. Text: S9000000761.

The personal reference of *which* is here buttressed by the use of the resumptive pronoun *he*.

However, what is directly relevant to the present problem is the fact that the use of relative *which* with personal reference lives on in modern English dialects in the normal colloquial language:

The use of relative pronouns in Tyneside English differs from that in standard English in several ways. Firstly, *which* may occur with a personal antecedent, whereas in Standard English it would only occur after an impersonal referent. An example from present-day Tyneside is:

The ladies which accompanied him had curly hair

(McDonald 1980: 20).

¹³ As in *The Wanderer* 9:

Nis nu cwicra nan
þe ic him modsefan minne durre
sweotule aseccgan.

'There is now no living being to whom I dare reveal my heart openly.'

(Mitchell 1985: II §2185-6)

¹⁴ Wright & Wright (1928: §385):

In order to indicate more clearly the gender and case of the antecedent to the relative it became common in the fourteenth century to add the personal pronoun of the third person to the *þat*, as *þat ... he (sche) = who; þat ... it = which; þat ... his = whose; þat ... him = whom, etc.*; and similarly with *which*, as *which ... his = whose, etc.*

¹⁵ This reference in the quotation from Milroy & Milroy is to an unpublished Graduate Certificate of Education Dissertation (University of Newcastle).

This use of *which* is found in other non-standard dialects, and may be a hypercorrect form, arising from a feeling that *which* is superior to the more informal *that*. Secondly...

(Milroy and Milroy 1993: 207).

Orton *et al.* (1962-71: II 1071 (Questionnaire 3.3.7)) record the following sentence from Gloucestershire:

- (85) I know a *chap which*'ll 'elp ya [in my transliteration]

In Cockney, *which* is said to replace *that* or *who* occasionally, as in

- (86) the old *faggit, which* I know 'er to be a liar, says, etc.

(Matthew 1938: 193)

(again with a resumptive pronoun). The OED (s.v. *Which* 9) mentions this use ("Now only *dial.* except in speaking of people in a body") and gives some examples.

It is obvious, then, that the use of relative *which* with a personal antecedent, which was general in Middle English and Early Modern English, has survived and lives on in various modern English dialects. Seen in this light, the frequent occurrence in Modern English of relative *which* with personal reference is less than surprising.

12. The synchronic factor

As we just saw, the English relative wh-pronouns derive from interrogative pronouns, probably through a kind of reanalysis. In some of their uses the two types of pronoun are therefore sufficiently close to be able to influence each other. Thus, in the standard language both interrogative and relative *who* have personal reference, and both interrogative and relative *which* have nonpersonal reference. There is one significant exception: interrogative *which* is used about persons when there is an element of selection, i.e. when "*which* implies that the choice is made from a limited number of alternatives which exist in the context of discussion" (Quirk *et al.* 1985: 369). One might therefore suspect that this characteristic of interrogative *which* could influence the use of relative *which*. This seems indeed to be the case. There is a very great number of instances in the Corpus of the following type:

- (87) And Saddam's problem is that his country is ethnically divided. There're Kurds in the north, there are *Sunnis, of which* he is one himself, in the center around Baghdad. And then the south is—is Shi'a—Shiite Muslim.
Corpus: npr/07. Text: S2000920817.

- (88) DANGEROUS Lady reminded me of those films set in New York with seven Italian *Americans* (*one of which* is always Robert De Niro) shouting Heh punching each other's shoulders, hugging, adoring their moms, protecting their sisters and graduating from petty crime to Mafia hoodship.
Corpus: today/11. Text: N6000950527.
- (89) *Technologists, of which* I am not one, have a tendency to vastly overestimate the speed at which technology will be adopted by people in society.
(Corpus: times/10. Text: N2000951118.
- (90) Esther's best friend is Sonia Kaufman, a high-powered lawyer, pregnant with fraternal *twins, of which* one, both or neither may conceivably be the offspring of her lover not her husband.
Corpus: times/10. Text: N2000960111.
- (91) THE appointments of 66 new Queen's Counsels were announced yesterday. The new silks were appointed from 488 *applicants, of which* 40 were women and 14 were from ethnic minorities.
Corpus: times/10. Text: N2000960405.
- (92) Yet there came some four other *men* yet to live with us, *of which* there is but one alive; and our Lieutenant is dead, and also his father and his brother. And there was some five or six of *the last year's twenty, of which* there is but three left
Corpus: usbooks/09. Text: B9000001417.
- (93) Its population is nearly two hundred *persons, of which* only ten are Mexicans, for the balance are all Americans from the North with an occasional European.
Corpus: usbooks/09. Text: B9000001417.
- (94) Companies should be putting into place policies designed to keep their best *people, at least half of which* will be women.
Corpus: oznews/01. Text: N5000950513.
- (95) a television series, where American teenagers were chosen to vanquish evil forces bent on destroying planet Earth. <p> The morph relates to metamorphosis, which means to change. <p> The teens morph into the karate-kicking *rangers, each of which* has characteristic colour.
Corpus: oznews/01. Text: N5000950910.
- (96) "Projected figures show in 45 years there will be six million *people* in Queensland *of which* four million will be in the south-east corner", Professor Wilson said.
Corpus: oznews/01. Text: N5000951016.

See also (64). An interesting suggestion is tentatively put forward by Jacobsson (1970: 356): "Some writers, faced with the choice between the formal *whom* and the informal *who* in object position, will evade the issue by choosing *which, that* or zero."

Since selection is often signalled by means of a preposition preceding the relativiser, this explanation could be relevant for some of the cases in this category.

That the influence of the selection factor is quite strong can be demonstrated by means of examples like the following:

- (97) Erm but you had *demonstrators who of which* at least one was an embryo surgeon erm MX was an embryo surgeon wasn't he.
Corpus: ukspok/04. Text: S0000000834
- (98) Erm I don't sit awake at night and worry about whether we're being fair about gender any more. Did at one time but that was to the credit of *the Equal Opportunities Group who of which* I <ZG1> was <ZG0> a member
Corpus: ukspok/04. Text: S9000000654.

where the speakers are about to use the standard *who* after a personal antecedent but then realise they are going to present a choice "made from a limited number of alternatives which exist in the context of discussion"¹⁶ and so switch to *of which*.

Of the two explanatory factors suggested above, the first provides an opportunity to deviate from the standard usage by offering an already existing form as an alternative to the standard one, and the second provides the impetus to do so by exerting analogical influence from a neighbouring grammatical category.

13. Vacillation

In view of the many cases where a personal antecedent can be followed by either *who* or *which*, it is to be expected that many speakers will hesitate between the two. Let us first get one type out of the way where there is only apparently a choice between *who* and *which* after the same antecedent. One of the regular functions of a relative *which*-clause is postmodification of a whole clause, a verb phrase or a predicative complement.¹⁷ Accordingly a reader or listener may occasionally hesitate whether a relative *which* has a noun phrase in the preceding clause or the whole clause as its antecedent. Cases where it seemingly refers back to a personal noun phrase can mostly be explained as cases of clausal postmodification, as in the following instances:

¹⁶ Quirk *et al.* (1985: 369)

¹⁷ Olofsson (1981: 32), Quirk *et al.* (1985: 1244-1245).

- (99) If you go in to Kings' College now and go in to the common room it's full of Asian *girls which* you never used to see a few years back.
Corpus: ukspok/04. Text: S9000000524.
- (100) But I had a super biology *master which* erm stimulated an interest <ZF1> in <ZF0> in biology in the wider sense Yes. and er I'm still very interested.
Corpus: ukspok/04. Text: S0000000834.
- (101) She was a very beautiful and very, very slender and thin *woman, which* was not at all the taste of the time, when women were supposed to be quite buxom in every possible place.
Corpus: npr/07. Text: S2000910927.

It is possible that the following is not a case of vacillation either:

- (102) I doubt, however, whether it's going to make very little difference to the *people who* overthrew him, *which—who*, of course, were the Haitian army.
Corpus: npr/07. Text: S2000911123.

Here the speaker may have intended clausal reference at first, hence *which*, but then changed his or her mind and narrowed the scope of the reference to the personal antecedent, hence *who*. *Which* and *who* would then have different antecedents.

Genuine vacillation, on the other hand, can be seen, for instance, in

- (103) WESTCOTT: Presumably, there are many *patients* around *who* have suffered strokes and hence, presumably again, there are many *people which* display these manifestations - this kind of neglect - that you are talking about?
Corpus: bbc/06. Text: S1000910704.
- (104) It just wouldn't appeal to me and I think it is associated to them in a big big way and I think it's just well it's just part of *them who which* just want to say I want to smoke <F01> Mm. Do any er does anybody's parents smoke
Corpus: ukspok/04. Text: S9000001240.
- (105) There is not a *leader around which* the Conservative Party can unite because exactly the same antagonisms against Mrs. Thatcher will be mirror-imaged with any of the other credible candidates. [Repeated as:] There is not a *leader around whom* the Conservative Party can unite. Because exactly the same antagonisms against Mrs Thatcher will be mirror-imaged with any of the other credible candidates.
Corpus: bbc/06. Text: S1000901102.

- (106) Er the name MX might be familiar to you. It isn't actually no. <F01> Ah. Er but he was the *researcher which* was *who* for a long time was in charge of this project
Corpus: ukspok/04. Text: S0000000831.

Cf. also (97) and (98).

14. Summary and conclusions

The functional distinction between relative *who* and relative *which* can be useful in eliminating potential ambiguity where the interpretation of a relative sentence hinges on which element in the matrix clause is being postmodified by the relative clause. In very general terms, *who* refers back to a personal antecedent and *which* refers back to a nonpersonal one. It is therefore interesting to find that in a modern English corpus there are a number of antecedents that can be ordered along a scale of increasing "personalness" that nevertheless, although decreasingly, take *which* as their relativiser. The main explanations for this, it is argued, are two. Firstly, when the relative wh-pronouns developed out of their interrogative counterparts in the Middle English period, *which* was used with personal and nonpersonal reference indifferently. This ceased to be standard usage in the 17th century, but lived on in the dialects so that dialect speakers today will be familiar with it. We can therefore assume that the use of relative *which* with personal reference comes naturally, as an option, to a substantial number of speakers today for that reason alone. But secondly, perhaps the most important influence on relative *which* is the existence and influence of the homonymous interrogative *which*, a pronoun regularly used in the standard language with personal reference when a "choice is made from a limited number of alternatives which exist in the context of discussion". The very large number of cases of the type *twins, of which one* testifies to the importance of this influence. As so often happens, a look at a language phenomenon as it actually occurs in the language thus shows up a continuum rather than the discrete categories of our textbooks.

REFERENCES

- Barber, Charles
1996 *Early Modern English*. (2 edition). Edinburgh: Edinburgh University Press.
- Biber, Douglas – Stig Johansson – Geoffrey Leech – Susan Conrad – Edward Finegan
1999 *Longman grammar of spoken and written English*. Harlow: Longman.
- Cobuild Corpus
1982 <http://titania.cobuild.collins.co.uk/form.html>
- Flexner, Stuart Berg (ed.)
1994 *The Random House dictionary of the English language*. (2 edition). New York: Random House.

- Gove, Philip Babcock (ed.)
1971 *Webster's third new international dictionary of the English language*. Springfield, Mass.: Merriam.
- Greenbaum, Sidney
1996 *The Oxford English Grammar*. Oxford University Press.
- Greenbaum, Sidney – Janet Whitcut
1988 *Longman guide to English usage*. London: Longman.
- Görlach, Manfred
1991 *Introduction to Early Modern English*. Cambridge: Cambridge University Press.
- Jacobsson, Bengt
1970 "English pronouns and feature analysis", *Moderna språk* 64: 346-359.
- Levin, Magnus
2001 *Agreement with collective nouns in English*. (Lund Studies in English 103). Lund: Department of English, Lund University.
- Mair, Christian
1998 "Man/woman which... – last of the old, or first of the new?", in: Antoinette Renouf (ed.), 123-133.
- Matthew, William
1938 *Cockney past and present*. London: Routledge.
- Milroy, James – Lesley Milroy (eds.)
1993 *Real English. The grammar of English dialects in the British Isles*. London – New York: Longman
- Mitchell, Bruce
1985 *Old English syntax I-II*. Oxford: Clarendon.
- Mustanoja, T.F.
1960 *A Middle English syntax. Part I: Parts of speech*. Helsinki: Mémoires de la Société Néophilologique de Helsinki. Vol. XXIII.
- Odenstedt, Bengt – Gunnar Persson (eds.)
1989 *Instead of flowers: Papers in honour of Mats Rydén*. Umeå Studies in the Humanities 90. Stockholm: Almqvist & Wiksell.
- Olofsson, Arne
1981 *Relative junctions in written American English*. Gothenburg Studies in English 50. Göteborg: Acta Universitatis Gothoburgensis.
- Orton, Harold *et al.*
1962-71 *Survey of English Dialects*. (Introduction and 4 volumes). Leeds: E.J. Arnold.
- Persson, Gunnar
1989 "On the semantics of collective nouns in English", in: Odenstedt, Bengt – Gunnar Persson (eds.), 179-188.
- Quirk, Randolph – Sidney Greenbaum – Geoffrey Leech – Jan Svartvik
1985 *A comprehensive grammar of the English language*. London – New York: Longman.
- Renouf, Antoinette (ed.)
1998 *Explorations in corpus linguistics*. Amsterdam/Atlanta: Rodopi.
- Simpson, J. A. – E. S. C. Weiner (eds.)
1989 *The Oxford English Dictionary*. (2. edition). Oxford: Clarendon.
- Sinclair, J. M. (ed.)
1987 *Looking up: An account of the COBUILD project in lexical computing*. London and Glasgow: Collins.
- Wright, Joseph – Elizabeth Mary Wright
1928 *An elementary Middle English grammar*. (2. edition). London: Oxford University Press.