

Do 'Types Produce Types'? A Case-study Approach to Understanding the Development of John Holland's Vocational Personality Types

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This article is derived from a larger study by John Holland entitled *Making Vocational Choices: A theory of vocational personalities and work environments* (1997). One of the subjects considered in the article is Holland's description of how vocational personality types develop and the influence exerted upon this process by a number of what Holland terms 'influential variables' which he places under the rubric of 'other things being equal' (Holland, 1997: 13). The article begins with a brief overview of the theory and a short explanation of the methods and procedure employed in the study.

Holland's theory: a brief overview

Holland's theory originates in the 1950s, since which time it has undergone considerable modification and revision, and has been the subject of innumerable, mainly quantitative, studies. Central to the theory is the premise that vocational choice is an expression of personality. Holland suggests that people can be characterised by their resemblance to one of six personality types: Realistic; Investigative; Artistic; Social; Enterprising; Conventional (RIASEC). These are model or ideal types against which real individuals can be measured, for example, by using one of a variety of instruments that Holland and his collaborators have developed for this purpose. Perhaps the best-known of these instruments is the Self-Directed Search (Holland, 1997: 28), an easily-administered vocational interests inventory that provides an individual's pattern of resemblance to the model personality types expressed as a three-letter code (for example, SER: Social - Enterprising - Realistic).

An individual's pattern of resemblance to the model types, i.e. their personality pattern, has significant consequences in terms of how his or her career unfolds and Holland goes on to posit a number of hypotheses concerning the levels of educational and career aspiration and achievement associated with different personality types as well their likely behaviour in a variety of non-career-related situations (Holland, 1997: 36).

Development of the 'types'

Holland suggests that people come to resemble types as a result of the interplay between a number of developmental influences. Foremost amongst these is parental influence since, as Holland puts it, 'types produce types' (Holland, 1997: 17). This is largely because parents create an environment characteristic of the type (or types) they resemble, which inevitably influences the development of their offspring. The process of development thus set in motion, the child is further exposed to the influence of the wider family, peers, and the broader community (e.g. school, church, clubs and societies) which conspire to reinforce his or her proclivity toward a particular personality type.

Holland is content to describe the aforementioned process in highly general terms, asserting that the fact that it *does* occur is more important than the detail which would unnecessarily complicate the theory. Understandably, this latter omission has been the focus of some criticism, even by those favourably disposed toward Holland's theory (Smart, 1989). However, studies have been conducted which tend to support Holland's suppositions and it does indeed appear to be the case that to a significant extent types really *do* produce types (De Winne *et al.*, 1978; Smart 1989; Helwig & Myrin, 1997).

'Other things being equal'

'Other things being equal' is not so much an element of Holland's theory as a condition that Holland says must be observed if the theory is to be properly understood (Holland, 1997: 13). The term encompasses a range of variables that serve potentially to modify the main predictions arising from the theory. Specifically, Holland identifies 'other things being equal' as comprising 'age, gender, ethnicity, geography, social class, physical assets or liabilities, educational level attained, intelligence and influence' (Holland, 1997: 11, 13). As shall be seen, the evidence of my study would appear strongly to suggest that the influence of at least some of these variables applies equally to how the personality types develop.

Methodology

I opted to use case studies as the basis of my research because as one commentator has observed they 'offer the

richness of context that is generally unavailable in other types of study' (Swanson, 1999: 137). Case study method can properly be described as an 'empirical enquiry' (Yin, 2003: 13), and consequently should not be confused with purely qualitative research, since it may legitimately incorporate (as did my study) both qualitative and quantitative data.

Procedure

Six participants (whose names have been changed to preserve confidentiality) took part in the study. The group was homogenous in the sense that all participants were aged from their mid-30s to mid-40s and could be characterised as being middle-class professionals. However, there were some differences; in particular, the group was split evenly between men and women, my intention being to take into account possible differences between participants arising from gender-role socialisation.

Participants were first asked to complete Holland's Self-Directed Search in order to identify their three-letter code, i.e. their pattern of resemblance to Holland's model personality types. Next, a short vocational and biographical questionnaire was administered. Finally, participants were interviewed, in order both to clarify and elaborate upon the information provided in the Self-Directed Search and questionnaire, and to gather more detailed developmental and biographical data from which the case studies were constructed.

Results

Table 1 compares participants' personality patterns (three-letter codes) with what were identified in the questionnaire and subsequent interview as the primary occupations of their parents. In each case, occupations have been allocated the equivalent three-letter Holland Occupational Code (HOC), using *The Dictionary of Holland Occupational Codes* (Gottfredson & Holland, 1996). In comparing participants' personality codes with the occupational codes of their parents, my intention was to identify whether the two matched, or were similar, i.e. 'that types produce types'. Overall, Table 1 presents a rather mixed picture. On the one hand, it is noticeable that the personality patterns of all six participants share at least two letters from the occupational code of their parents; and in the case of one participant (Bernard) all three letters are represented. On the other hand, although four participants have as the first letter of their personality pattern (i.e. their primary type) letters from either or both of the parents' occupational codes; only one (Frances) shares the first letter of her pattern with the first letter of the occupational code of a parent.

Of course, the usefulness of the data presented in Table 1 is predicated on an assumption that a parent's occupation is actually indicative (consistent with Holland's assertion that vocational choice is an expression of personality) of their personality type. This is not necessarily the case – we don't know that a parent was really in the 'right' job for their type. Further, the process of coding occupations using Holland's Occupational Codes was an imperfect one.

Table 1: Comparison of Participants' Personality Patterns with Parental Holland Occupational Codes (HOC)

Participant	Personality pattern (three-letter SDS summary code)	Occupations of parents with mother at top, then father	HOC of parental occupations	Occurrence of letters from parental HOC in participant's personality pattern	Occurrence of letters from parental HOC as first letter (primary theme) of participant's personality pattern	Description
Alison	ACE	Secretary/Teacher Urban Planner	CSE/SER ESI	2 (C, E)	No	—
Bernard	CSE	Farmer Horse Trainer	ESR SEC	3 (C, S, E)	Yes	Third letter of HOC of father
Colin	AIC	Secretary Dental Technician	CSE REI	2(I, C)	No	—
Darren	RAI	Teacher Electrician (Aircraft)	SER IRS	2 (R, I)	Yes	Third letter of HOC of mother and second of father
Eleanor	SAE	Secretary Undertaker	CSE ESR	2 (S, E)	Yes	Second letter of HOC of mother and father
Frances	SCA (first two letters undifferentiated)	Seamstress Teacher	CRE SER	2 (S, C)	Yes	First letter of HOC of mother and father

Consequently, Table 1 must be regarded as being at best inconclusive. If anything, it suggests that the process is more complex than a simple vertical transference of parents' vocational aptitudes and preferences to their offspring. So what is really going on? To begin to answer this question, we must look at participants' recollections of their formative years.

Participants: in their own words

The accounts provided by participants do indeed confirm the important influence that parents have exerted over their development. Into the fabric of these accounts are woven, sometimes almost inextricably, a number of the variables encompassing 'other things being equal': each of these is considered in turn below.

Social class

Without exception, all of the participants in the study describe the social class of their family as having been middle- (or lower-middle) class. Their recollections suggest that 'middle-classness' was conveyed both through material means, and by the inculcation of what participants feel were middle-class values. Amongst the former was encouragement to join clubs and societies and to participate in extra-curricular activities at school. Regarding the communication of characteristically middle-class values, several participants refer explicitly or by implication to a 'work ethic'. These were caring and supportive families, but by no means overly sentimental or molly coddling – 'a get on with it attitude' (Frances). Materially, all the participants describe their familial circumstances as having been (in the words of one) 'comfortable', but nobody's family was what could be called affluent and attitudes to money reflected this fact; one participant recalls vividly the memory of her mother counting out the money for a new car on the living room floor! Social values were communicated, several participants recollect, principally at the dinner table, and in some instances through religious worship, though the latter was never imposed in an oppressive manner.

Significantly, no participant recalls their parents having sought to instil in them a preference for a particular occupation, whether their own or another. Neither did any participant feel that they were encouraged to entertain, or to avoid, certain jobs based on gender stereotypes. This tends to reinforce the data presented in Table 1 in that it suggests the absence of a simple 'top-down' transference of parental occupational preferences to their offspring. Rather, participants recall (with the exception of one, Bernard) that their parents conveyed to them simply the expectation that they should 'do well' (Eleanor) in whatever career they chose.

Educational level

Holland speculates that the level of education that an individual achieves will exert a significant influence over their career (Holland 1997: 58). Here, however, we are more concerned with how parents influence their offspring's attitudes and aspirations as regards education, and the practical ways in which they assist, or hinder, offspring's educational achievement. For the purposes of this article, I adopt a broad definition of 'education' which encompasses both informal and formal learning experiences, and instrumental and associative (or vicarious) learning (Mitchell *et al* 1979).

As we have seen, none of the participants feel that they were pushed by their parents to do well educationally, though it was generally assumed they would. However, the influence of parents in shaping both the direction and the level of their offspring's educational aspirations (and subsequent achievement) is apparent especially in the recollections of two of the participants: Eleanor and Bernard.

Eleanor's story is what might be termed the more 'positive' of the two, and clearly illustrates the importance of associative learning (i.e. learning through the direct, or indirect, observation of other people's behaviour). She recounts the childhood experience of accompanying her mother to the care home at which the latter was employed, where she recalls 'I used to sit and talk to the old people'. It was here that Eleanor first became interested in caring occupations (i.e. those with a pronounced Social theme) and specifically in occupational therapy having observed an Occupational Therapist at work in the home. For Eleanor, the experience of watching her mother at work reinforced her experiences in the family home where her father's job as an undertaker meant that grieving visitors were commonplace – further inculcating in her an appreciation of Social values such as empathy and sensitivity that has lasted throughout her career. Indeed, it is precisely these values, Eleanor believes, that find expression in her present job as a Connexions personal adviser and help explain why she values her job so highly.

Bernard's experiences were rather different. Until the age of fourteen, Bernard attended his local comprehensive school with his friends where he performed well. However, at this point, his mother in consultation with Bernard's paternal uncle decided to move Bernard to a private school. For Bernard, the shock was immense and he was unable to settle in, performing (in what he terms an 'act of self-sabotage') dismally in his O levels and leaving as soon as he could with just a handful of poor grades. The story has a happy ending in that the experience ultimately set him on a path that took him back to college and then to

university. However, it illustrates dramatically the direct and profound way in which parents can influence offspring's educational attainment. Further, it reveals how the variables comprising 'other things being equal' tend to exert an inextricable and reciprocal influence upon one another since Bernard is explicit that one of the reasons he did so badly in his new school was because he felt 'out of place' in terms of his social class.

Ethnicity and geography ('community')

I have chosen to address these two variables under the same heading, partly for reasons of economy, but also because in the case of two of my participants they appear inextricably bound together. 'Community' is used (as it is in my study) as a sort of shorthand to describe the sense of place and belonging that ethnicity and geography help to engender in an individual.

Once again, Eleanor's and Bernard's experiences are particularly illustrative. In Eleanor's case, she grew up in a close-knit Jewish community, and while her family was not Orthodox (for instance, Eleanor attended a mixed comprehensive), the experience inevitably delineated the experiences and opportunities to which Eleanor was exposed. We have already seen how the example of her father and mother informed Eleanor's career aspirations and the inculcation of Social values. However, Eleanor is clear that growing up in so close-knit a community has exerted a more pervasive and profound influence, in that in her career she has sought to replicate the peculiarly intimate and Social environment of her childhood: as she says of her present (and favourite) job, 'I like this [a close community]... Connexions is [also] a close-knit community'.

Bernard's experiences concern geography rather than ethnicity. Bernard was brought up on the family farm in a remote rural community. In career terms, this meant that opportunities were limited, and indeed it initially seemed that Bernard would, as his family hoped, take over at least some aspect of the running of the farm. However, Bernard began to feel trapped and finally decided to break with the wishes of his family and 'get away'. Thus, 'community' in Bernard's case could be said to have influenced his development (and subsequent career) negatively, in that it prompted him to reject a career on the land. But at the same time, it may be that its influence has been greater than Bernard would give it credit for. Farming is an occupation that requires specific attributes: social competence (after all, these are small, close communities), the ability to work long hours at frequently arduous tasks, and (not least) business acumen. Translated roughly into Holland's typology, these attributes equate to Social, Realistic and Enterprising. Table 1 shows that two of these (Social and Enterprising) are present in Bernard's personality pattern; and while Realistic is absent, Bernard

has as the first letter of his code (his primary theme) Conventional, i.e. the type adjacent (and therefore most similar to) Realistic in Holland's RIASEC typology.

Discussion

The conclusions that emerge for this article are necessarily tentative, and incomplete. For one thing, space means that I am only able to include consideration of some variables, in particular, the role played in the development of vocational preferences by chance and insight (Holland, 1997: 70), which my study would suggest is considerable. More importantly, however, it is important to acknowledge the limitations of the study from which this article is derived. As we have already seen, there were a number of methodological limitations, not least the small sample group used, and the difficulty of coding occupations using Holland's system of occupational classification, where there were frequently a number of possible alternatives, and other instances where no equivalent occupation could be found. Moreover, the study was limited in its scope, in that I considered only some of the variables that Holland identifies.

Where this article hopefully succeeds, like the study itself, is in illustrating the benefits of applying a case study approach to filling out Holland's rather vague description of how the personality types develop. Far from a simple top-down transference of parental personality type, the picture that emerges is one of a complex process in which parents influence the development of their offspring in sometimes subtle and at other times quite profound and unexpected ways, and to which at least some of the variables – often working inextricably upon one another – contribute.

References

- De Winne, R.F., Overton, T.D., & Schneider, L.J. (1978.) Types produce types – especially fathers. *Journal of Vocational Behaviour*, 12, 140-144.
- Gottfredson, G.D., & Holland, J.L. (1996). *Dictionary of Holland Occupational Codes* (3rd ed.). Odessa, FL: Psychological Assessment Resources.
- Helwig, A.A., & Myrin, M.D. (1997). Ten-year stability of Holland codes within one family. *Career Development Quarterly*, 46, 62-71.
- Holland, J.L. (1997). *Making Vocational Choices: A theory of vocational personalities and work environments* (3rd ed.). Odessa, FL: Psychological Assessment Resources.
- Mitchell, A.M., Jones, B.G., & Krumboltz, J.D. (1979). *Social Learning and Career Decision Making*. Cranston, RI: The Carroll Press.

Smart, J.C. (1989). Life history influences on Holland type development. *Journal of Vocational Behaviour*, 34, 69-87.

Swanson, J.L., Stability and Change in Vocational Interests, in Savickas, M.L., & Spokane, A.R. (Eds.) (1999). *Vocational Interests: Meaning, Measurement and Counselling Use*. Palo Alto, CA: Davies-Black Publishing.

Yin, R. (2003). *Case Study Research Design and Methods* (3rd ed.). Thousand Oaks, CA: Sage.

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