

Age-period-cohort and cultural engagement

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June 2, 2015

1 Introduction

A crucial question for cultural sociologists is how patterns of taste and cultural practice vary across time (Reeves 2014, Jaeger and Katz-Gerro 2010). Does cultural engagement increase with age (Scherger 2009)? Have there been historical shifts in the nature of cultural capital? Has snobbery declined over time? Despite this interest, the relationship between time and taste remains under-examined. Understanding this association requires that researchers attend to three distinct dimensions of time: age (how old people are when data collection occurs), period (when data collection occurs), and cohort (the year or period in which people were born) (Yang et al. 2008). Differences between age-period-cohort (APC) effects are described in this fictional dialogue, adapted from Suzuki (2012: 452):

A: I don't enjoy the cinema anymore. Guess I'm just getting old.

[Age effect]

B: Do you think it's just what has been available? The films have been pretty poor this year. [Period effect]

A: Maybe. What about you?

B: Actually, I have been dissatisfied too! I haven't seen anything I really enjoyed either.

A: You're kidding. Almost all the new releases seemed aimed at your age group. I would have loved those films when I was your age.

B: Oh, really?

A: Yeah, young people these days are never satisfied. We were not like that. [Cohort effect].

Cultural sociology studies extensively the association between taste and a range of social and political dimensions, including class, status, gender, religion, and political ideology (Bourdieu 1984; Chan 2010; Bennett et al. 2009) and yet, despite this broad and growing literature, much less attention has been directed toward temporality more broadly.

There are three primary reasons for this neglect: first, inadequate data. Until recently there have been very few repeated cross-sectional surveys of cultural practice conducted with sufficient regularity. Individual-level longitudinal data sets which follow particular respondents over time while measuring taste are even rarer. Second, traditional linear regression models are unable to resolve the identification problem in estimating age-period-cohort effects. The identification problem is, in short, the logical impossibility of including measures of age, period, and cohort in the same mathematical model. Thus, identifying the effect of age on omnivorousness — the extent to which people’s taste ranges across different genres — is impossible in that framework. Third, not only is there a methodological problem in estimating age-period-cohort effects, there are also theoretical challenges in how sociologists conceptualize the relationship between these three variables (Lizardo and Skiles 2012). Cultural sociologists in particular should be concerned with these issues because of the potential cohort effects on taste.

Three recent developments make this an excellent time to reconsider age-period-cohort effects in relation to cultural sociology. The availability of good data - which captures individuals over time and which measures cultural preferences and practice at regular (e.g., annual) intervals - is increasing. In tandem, over the last decade there have been a number of important contributions to the methodological literature on age-period-cohort effects which alter the kinds of questions that can now be asked (Luo 2013b; Luo 2013a). Finally, insights from cognitive sociology, particularly as applied to Bourdieu’s sociological apparatus, have provided new ways of thinking about how cultural preferences are generated and maintained while situating such discussions in broader debates about social change (Vaisey 2009).

In this chapter, I bring together some of these developments by discussing the age-period-cohort identification problem in light of the specific theoretical concerns of cultural sociology. This chapter will firstly outline some of the challenges age-period-cohort analysis poses for Bourdieu’s work while situating these debates in the context of the omnivore thesis (see also, the papers by Kardemir and Warde, and by Gayo-Cal in this volume). Secondly, I will outline the identification problem associated with estimating age-period-cohort effects while summarising some of the recent methodological innovations attempting to solve it. Thirdly, I will discuss the impli-

cations of these methodological and theoretical issues for conceptualising age-period-cohort effects in the context of Bourdieu's work. Fourth I will explore the implications of these theories for how researchers think about age-period-cohort effects in relation to the omnivore thesis.

2 Bourdieu, time and omnivores

Bourdieu was concerned with the composition of social practices in the context of processes of socio-cultural change. His interest in cultural engagement is centred around a set of questions pertaining to how and why certain cultural dispositions are associated with specific social groups (Bourdieu 1984; Bourdieu and Passeron 1979). For example, his concept of the habitus captures both how and why highbrow cultural practices are more common among elite groups but not others. Bourdieu (1984) defines habitus as 'a structuring structure', in that it organizes the social world and classifies it, and as is 'a structured structure', in that this classificatory system is itself the product of 'internalization of the division into social classes'. Cultural practices differ across social classes because the classificatory systems that determines which practices are highly valued (or not) are grounded in social position.

Bourdieu's theory of social change is far less concerned with how such change might occur; instead he wants to understand why socio-cultural norms and structures are reproduced. This leads Bourdieu to theorize, again using the habitus, the conditions that facilitate or inhibit such change in general. The habitus has a critical role in perpetuating and reproducing the socio-cultural norms and social structures that link social position and patterns of cultural practice. In this sense the habitus is a stable way of relating to the world that develops during the early years and which adapts to commonly changing circumstances, such as age.

Much of the secondary literature utilising Bourdieu's work has been principally concerned with the association between social position and the composition of social and cultural practices. Due to this emphasis on stratification, the implications of his work for examining how age, period, and cohort effects have not been fully developed. Part of the reason for this neglect is that Bourdieu himself does not directly address these debates and his account of the influence of age is under-developed. For example, Bourdieu's focus on the 'objective gap between the slope of [the] actual trajectory' of an individual through the social space and 'the modal trajectory of their group of origin' (1996: 185) suggests that he would anticipate a primarily smooth

age-trajectory. That is, he would anticipate the individual to follow the trajectory of the group of origin with relatively little deviation over time. Although Bourdieu acknowledged that changes to the cultural field could occur, with implications for the relationships between habitus and cultural practice (i.e., what is considered to be culturally valuable), he believes such changes are uncommon and represents them as a form of 'crisis'. While this may be accurate, as Bottero (2009) observes, this notion of 'crisis' (or period effect) is not explored in detail and so stability rather than change is emphasised. In addition, Bourdieu's vision of the habitus does not fully account for change across cohorts. To extend the crisis example, how will changes to the cultural field influence the habitus of those socialized under new cultural regimes?

This gap in Bourdieu's account is particularly evident in connection with the omnivore thesis; the most prominent example of the post-Bourdieuian research stream (Peterson and Kern 1996; Peterson and Simkus 1992). The omnivore thesis has an important place in this age-period-cohort debate because it is at the centre of the critique of Bourdieu-inspired cultural sociology and because it makes specific and testable claims.

Central to the omnivore thesis is the contention that educated and professional individuals are more likely to express preferences for cultural items and activities that cut across traditional status boundaries between, for example, music genres (Peterson and Kern 1996; Peterson and Simkus 1992). This new type of cultural consumer was the hypothesized consequence of profound socio-cultural changes during or just prior to the 1980s which altered status-group dynamics and cultural norms (Peterson and Kern 1996). Omnivores were products of something other than age-effects because people had previously aged without becoming omnivorous. They therefore emerged from a mixture of period and cohort effects. Despite these claims, very little work has examined whether any of these factors did, in fact, contribute to the rise of the omnivore and there remains a great deal of conceptual ambiguity around what precisely defines this type of cultural consumer (Van Rees et al. 1999).

In contrast to Peterson, the implications of Bourdieu's thinking are to suggest that omnivorousness is not a new phenomenon. As far back as *The Inheritors* (published in 1964 in France) Bourdieu and Passeron (1979) were drawing attention to groups of students who were blending high- and low-brow cultural goods. Bourdieu's concept of habitus, with its emphasis on the development of cognitive structures during the formative years of a child's life, suggests that period effects occurring in mid-life should not radically alter the stable dispositions that influence patterns of cultural practice. Pe-

riod effects will only influence patterns of cultural engagement to the degree to which they reconfigure the structure of the cultural field, i.e. instigate a 'crisis'. Hence, cohort-effects and, to a lesser extent age-effects, are more important for Bourdieu than period effects; suggesting that the rise of the omnivore will likely be overemphasised in the work of Peterson (Jaeger and Katz-Gerro 2010).

In summary, Bourdieu's account of socio-cultural change does not clearly articulate how age-period-cohort effects may interact with the habitus in shaping cultural practice over time. Of course, this neglect is understandable. Bourdieu did not have longitudinal data and there are longstanding theoretical and methodological challenges associated with estimating APC effects. However, key questions in the omnivore debate can only be resolved through examining age-period-cohort effects and so addressing these methodological and theoretical questions becomes particularly important.

3 Interpretation of the Habitus: Insights from the APC

3.1 Age-period-cohort analysis and the identification problem

Variation in omnivorousness or cultural participation over time can be explained in terms of age, period, and cohort (APC) effects (Yang 2007). These apparently simple concepts need to be explained more detail. Change associated with reaching a particular age (i.e., turning 40), regardless of the year of birth, is an age-effect. Age effects are regular changes which are observed across time and place. Although changes in health are not strictly age-effects they are frequently associated with it (Yang 2007: 20). Age is a crucial dimension in social science research, associated with a wide range of sociological outcomes (Voas and Crockett 2005). Period-effects are the consequence of changes in a society at a particular point in time that affects all age groups simultaneously (i.e., WWII). These social and historical changes can affect an individual's political views, vocabulary, and health (Wilson and Gove 1999). Cohort effects are changes which occur across groups of individuals who experience a similar event (such as birth in the same year). Birth cohort 'membership may be thought to index the unique historical period in which a group's common experiences are embedded' (Alwin 2012: 23). Cohorts reflect the formative effects of exposure to social events in one's early childhood that persist over time (Ryder 1965).

Estimating distinct APC effects is far from simple because the original APC accounting model suffers from an identification problem. Imagine a 50 year old woman named Sheila who participates in a survey in 2010. Based on these two facts, she must have been born in 1960. Cohort is completely determined by age and period:

$$Cohort = period - age \tag{1}$$

This rather obvious equation gestures toward a larger problem. Because age is a perfect function of the other two time dimensions it is not separable from the others in relation to an outcome of interest. If a researcher has individual-level, cross-sectional data collected in 2005 they may decide to estimate a multivariate statistical model to predict cultural participation. Such models may (and very often will) include a measure of age. The researcher may even conclude that as age increases by 1 year that the likelihood of omnivorousness also increases by a specified amount (e.g. β coefficient) and yet the researcher cannot know from this data alone whether this is an age effect or whether this is a cohort effect. In other words, because $age = period - cohort$ and $cohort = period - age$, there is no certainty that the causal effect of age on cultural participation has been identified; it can reflect something more than the ageing process. Traditional multivariate regression models cannot solve this problem because there is more than one solution to the equation. Although such a model will, under some conditions, produce estimates of these APC parameters, a researcher cannot be certain they approximate the true value. Consequently, it is impossible to uniquely 'identify' the causal effect of APC on, for example, omnivorousness using this approach.

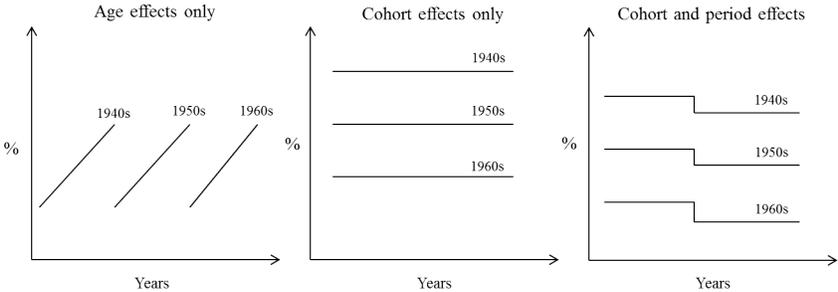
The APC identification problem has spawned a large literature proposing technical solutions to this estimation problem (Glenn 2005). In response there are those who repeatedly affirm the futility of this quest for a technical solution to this logical and conceptual problem (Luo 2013a; Bell and Jones 2014). A few dimensions of this ongoing and, at times, heated debate offer key insights into how researchers might examine the APC effects associated with the omnivore thesis.

Early attempts to overcome this identification problem used a statistical constraint of some kind (Yang et al. 2008). These constraints may fix the value of one of the three variables in a multivariate model or constrain one of the parameters in the model in order to make the coefficients estimable. Examples of this technique include constrained generalized linear models (Mason et al. 1973) or the intrinsic estimator (Yang et al. 2008). While the

details of these methods are not of primary importance, the problem with these approaches is that the choice of the constraint must be based on theory or information external to the available data and the model (Glenn 2005; Luo 2013b). However, such theoretical information is almost never available (Bell and Jones 2014) and so these methods require strong theoretical assumptions in order to be able to identify APC effects, assumptions that are rarely justified or even verifiable.

Those who have remained sceptical to these technical solutions to the APC identification problem have advocated the use of graphical approaches (Voas and Crockett 2005; Reeves, 2014); using data visualization and pre-existing theory to test key assumptions (Figure 1). For example, if we were to plot the levels of omnivorousness over time in a line graph (with time on the x-axis and the proportion of omnivores in the population on the y-axis) then there are a number of potentially observable patterns. If different cohorts consistently increase in omnivorousness with age then this would be an age-effect (Figure 1). If each cohort’s likelihood of being omnivores did not change as they aged but all cohorts were different from each other, then this would likely be a cohort effect (Figure 1). Finally, a period effect could be a break in the trend observed across all cohorts (Figure 1). Other combinations are also possible (Voas and Crockett 2005). These methods are therefore useful because researchers are rarely completely ignorant of the plausible APC-related mechanisms that may be shaping cultural engagement and can bring theoretical insight to bear on interpreting these visualisations of APC effects.

Figure 1: Hypothetical examples of age, period, and cohort effects by decade of birth



Notes: Decades represent birth cohorts

In sum, technical solutions to the APC identification problem are not generally applicable but only work under certain theoretically justified con-

ditions. In examining the rise of the omnivore it is inadequate to simply estimate APC effects using, for example, the intrinsic estimator without carefully considering whether such an approach is identifiable given the assumptions necessary to use this procedure.

3.2 Theorizing age-period-cohort effects

In all of these approaches to the APC identification problem theory therefore needs to play a central role. It justifies assumptions in the constraints approach, it explains the choice of methods (e.g., when using the intrinsic estimator and hierarchical APC models), and it helps researchers interpret the patterns observed using the graphical approach. These theoretical issues not only apply to estimating the causes of APC effects but also to the categories themselves. Criticism of these technical solutions has not only been statistical but it has also raised questions about how these effects are conceptualised, prompting reflection on the sociological theories of social change, e.g. Bourdieu's habitus and the omnivore thesis.

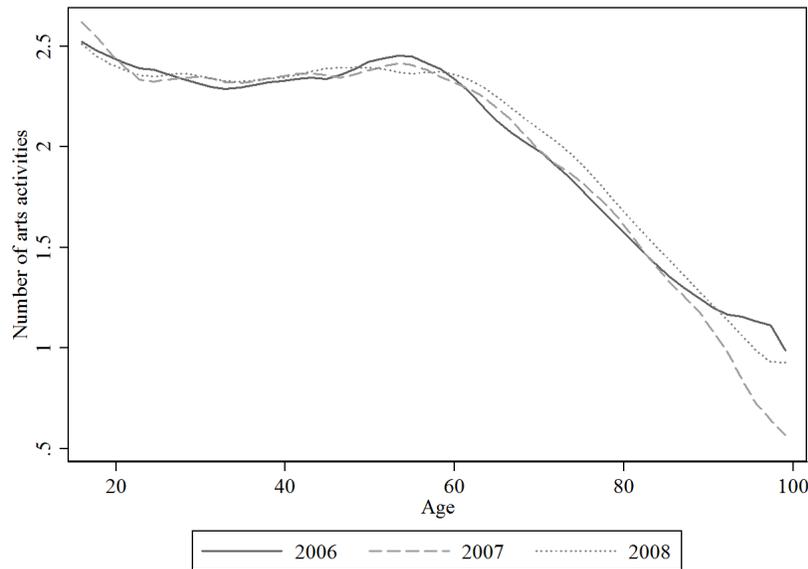
3.2.1 Conceptualising age effects

Early APC research argued that understanding social change (such as the rise of the omnivores or changes in the pattern of cultural practice) required only that analysts consider age and period: changes between age groups over time (Ryder 1965). One of the challenges with thinking through the implications of age for cultural practice is that the distinction between age-effects and the association between age and certain life-periods or particular social events is not always clear (Yang 2007). According to one perspective, age-effects should be consistent across countries and for different cohorts within that country; suggesting that age-effects are likely to be biological and unlikely to be altered by social and cultural factors. Observing this type of age-effect in the context of cultural engagement is, however, unlikely because cultural practice is inevitably connected with a variety of other social and institutional processes that are inter-twined with the biological process of ageing. Consequently, sociological examination of age-effects requires careful examination of the social roles, the institutional structures, and the biological changes associated with aging across societies. As such, ageing is an embodied process enforcing constraints on activity through the onset of poor health but these constraints are also shaped by institutions and social roles that may facilitate or restrict cultural activity (Evans 2003).

Consider the following illustration of age-effects using repeated cross-

sectional surveys from the UK. Here I create a crude measure of arts omnivorousness from the UK's Taking-Part survey. This is a frequency or volume measure of arts participation within the last 12 months capturing whether respondents self-report having participated in any of the 22 activities listed (range 0-20; no respondents participated in all 22 activities). The measure assumes that participating in a greater number of arts activities is a form of omnivorousness. This, of course, ignores the composition of the arts activities (i.e., are they highbrow activities or not) but these types of volume measures are frequently used in the empirical literature (Warde et al., 2007). The data suggest that the number of arts activities remain fairly stable (around 2.5 activities) until age 60 at which point it declines rapidly (Figure 2). This decline is observed in all three periods and could be evidence of an age-effect.

Figure 2: The number of arts activities respondents participated in within the last 12 months in the UK, 2006–2008



Notes: Years represent time when data was collected

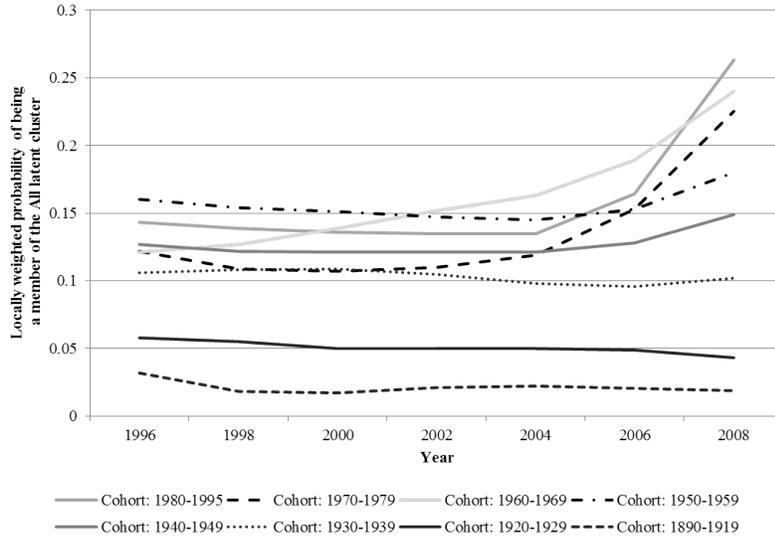
3.2.2 Period or cohort effects?

While period effects also influence temporal variation in cultural practice there is some debate regarding what constitutes a period effect. Alwin and

McCammon (2003) observe that period effects can influence a specific age-cohort or collection of age-cohorts uniformly at the same time. In contrast, Luo (2013a) argues that period effects must influence all age-groups at the same time otherwise they are cohort effects. For example, the rise of digital technology may constitute a period effect. It is a form of cultural engagement that was not available to some generations and then, relatively quickly, became (potentially) available to the vast majority of people. Some period effects might be short-lived and others may persist. Those who have documented the rise of the omnivore have usually examined the proportion of omnivorousness within a population over time. For example, Peterson and Kern document a rise in the proportion of people who blend high- and low-brow musical preferences in 1982 and 1992. At first blush, these results might indicate a period effect but drawing such a conclusion would ignore potential differences in omnivorousness across cohorts.

Taking this approach - that is ignoring cohorts - may be justified under some circumstances but it makes some important assumptions about how cultural preferences within individuals over time. For example, assuming that the rise in omnivorousness is occurring across all cohorts makes assumptions about the genetic (early socialization which cultivates dispositions) and relational (conditions in later life that activate cultural dispositions) mechanisms that shape cultural practices across the life course (Lizardo and Skiles 2012). For example, such an approach would ignore the possibility that this growth in omnivorousness is driven by cohort replacement rather than a general rise across all cohorts. In short, making the claim that there has been a period effect which has influenced all groups to the same extent is a strong conclusion because it would need to show that a range of other factors are not the explanation, such as the influence of technological change on both socialization and the context of adult cultural practice (Tepper and Ivey 2008). Further, this claim would suggest that the rise of higher education has not played a role (Fishman and Lizardo 2013) or that changing gender roles have not shaped socialization and the norms surrounding adult cultural engagement (Lizardo 2006b). Finally, making the claim of a period effect would suggest that changes in economic resources and parenting styles have also had no influence on omnivorousness (Lareau 2003). Of course, Peterson and Kern do not make this claim, but what this example illustrates is that importance of considering both the genetic and relational mechanisms that shape cultural practice.

Figure 3: The likelihood of consuming a broad range of cultural activities in the UK across cohorts, 1996-2008



Notes: *British Household Panel Survey. See Reeves 2014 for details.*

This complexity is evident in a recent study of cultural engagement over time in the UK where figure 3 in Reeves (2014) shows that the rise in omnivorousness is predominantly observed in the youngest three cohorts (born in 1960-1969, 1970-1979, and 1980-1995). In particular, the rise occurs first in the 1960s cohort and is then followed by these subsequent cohorts. These patterns suggest that while there have been period effects, the impact of these societal wide changes have influenced some cohorts more than others. Consequently, there are good reasons to assume that cohorts are very likely quite different from each other and that such differences will change the response of particular groups to these period effects.

3.2.3 Conceptualising cohort-effects and the possibility of interactions

If cultural sociology needs to think carefully about cohorts, how then should cohorts be conceptualised? Birth cohort effects are frequently assumed to be distinct from, or net of, age. In this view, cohorts are shaped by the 'conditions, barriers, and resources' into which they are born and under which they mature (Keyes et al. 2010: 1100). This idea stresses the importance of early years development but it is an empirical and theoretical question

which ages during those early years are most important.

The APC accounting model, which takes the form described earlier (age = period $\hat{=}$ cohort), assumes that cohort effects are established at some point during those early years. As Ryder observed, 'each new cohort makes fresh contact with the contemporary social heritage and carries the impress of the encounter through life' (Ryder 1965: 844). Ryder (1984) is often read as arguing that cohort effects are constant across the life course and as a consequence cohort effects have often been conceptualized as 1) independent of age and period and 2) a stable factor influencing individuals from birth to death. However, Ryder also wrote, 'transformations of the social world modify people of different ages in different ways; the effects of these transformations are persistent. Through this process a cohort meaning is implanted in the age-time specification' (Ryder 1965: 861). In this view, cohort effects may not be constant throughout the life course but there may be some trajectory that is cohort dependent and with which age and period interact (Luo 2013b). That is, the democratization of highbrow culture (a period effect) may have increased omnivorousness but only among specific cohorts (Scherger 2009; Hanquinet et al. 2014). Some may have become more egalitarian while others may have become even more likely to reject lowbrow culture. Thus, social change is not merely a matter of cohort replacement but also a dynamic interaction between cohort, age, and the contemporary social and historical context (period).

While recognising the theoretical importance of cohorts, Luo (2013b) has sought to move away from conceptualizing cohorts as constant and independent of period and age. For example, the effect of being a young adult when the civil rights movement was sweeping through America may matter for cultural preferences, but it is not necessary to assume that those effects persist unchanged into later life for that birth cohort. Instead, Luo argues that cohorts can be conceptualized as an 'age-by-period interaction' (Luo 2013b: 1987). Any historical change, such as the democratization of culture, that influences all people uniformly is not a cohort effect $\hat{=}$ instead it is pure period effect. Historical (or social) changes that only influence a small number of people, perhaps young children $\hat{=}$ and, by implication, those that are born after them $\hat{=}$ will create differences between generations; and these are cohort effects. According to Luo, this approach allows social scientists the flexibility to consider cohort effects as the product of both age-effects and period-effects.

Yet if cohort effects are the product of both age-effects and period-effects, how can cohort and, for example, period effects be distinguished? Returning to the example of the democratization of culture, there are two possible

processes through which such changes can influence social groups. New cultural practices can be taken up by younger generations first and then spread to older generations through cohort replacement or through the social networks across various groups over time (Lizardo 2006a). If the spread of omnivorousness is through cohort replacement then it was not a period effect because it never reached some cohorts. In contrast, if omnivorousness spread through all cohorts within a relatively short period of time then this would likely be a period effect.

3.3 Habitus as class-based cohort effect

These methodological and theoretical debates have important implications for Bourdieu's conception of the habitus, which is the context in which the dynamic interaction between contemporaneous social change (i.e., period effect) and the persistent influence of socialization (i.e., cohort effect) plays out.

Bourdieu's habitus draws on Piaget's notion of genetic structures that are relatively stable but which are not fixed (Lizardo 2004). The habitus is a set of socially produced cognitive structures, commonly called dispositions, used to explain how social structures become part of the cognitive structures that shape both the logic of our judgments and also the logic of everyday practice. These cognitive structures are constituted via the experience of objective probabilities and so only those who inhabit similar positions in the social space will emerge with similar habitus. The habitus emerges from and reproduces the differential association of people (Bourdieu 1984) and so those habitus which are most different from each other are also, of necessity, those positions in the social space which are most distant. Accidental interaction between these dissimilar groups is possible but 'they will not get on together, will not really understand each other, will not appeal to one another' (Bourdieu 1998: 11). Differential association creates separate paths through life and therefore unique patterns of cultural practice. Hence the habitus is a set of cognitive structures that are the product of a particular social location. These cognitive dispositions are structured (because they are the product of social structure and reflect those structures) and they are structuring (because they reproduce those structures through action).

To the extent that the objective probabilities change over time then we would expect to see cohort effects. The environmental and material conditions in which the habitus is developed consist of economic, educational, and social opportunities that make the acquisition of certain dispositions toward culture more or less likely (Lizardo and Skiles 2012). For example,

the rapid expansion of both economic wealth and the accessibility of higher education could have profound cohort effects in relation to omnivorousness.

Yet, Bourdieu's more important point is that these cognitive structures are group-specific as well as cohort specific. Changes to environment and material conditions that shape objective probabilities will differ depending on the individual's position with society. For example, the expansion of higher education benefited young men first and then young women. Some groups continue to have lower admission rates to university. Similarly, while standards of living have risen in the UK since WWII, the degree to which economic growth has benefitted those in deprived social circumstances has varied over time. This, of course, is not to suggest that such structures are unchangeable but rather that these early years form an important set of initial conditions through which all over subsequent adaptations to the habitus are made. This interaction between cohort specific changes and the extent to which certain classes experienced those cohort effects suggests that the habitus can be interpreted through the lens of APC as a class-based cohort effect.

This has a number of implications for how researchers think about documenting cohort effects associated with omnivorousness. First, the habitus is a product of the era in which a child matured (parenting styles that were in vogue, educational and cultural opportunities and tastes, access to resources, etc.). Second, the habitus is also responsive to changes associated with age. Social ageing 'leads agents to adjust their aspirations... become what they are and make do with what they have' (Bourdieu 1984: 110). Third, contemporary changes in the structure of society require adaptation within the habitus, suggesting that current dispositions are the product of the period during which an individual grew up, their current age, and the changes in the contemporary period (Lizardo and Skiles 2012). Similar to Luo, one could argue that the habitus (omnivore disposition) should be considered as an interaction between cohort and period.

4 Age-period-cohort modelling: implications for the omnivore debate

In previous sections I have shown that the APC problem is a theoretical problem as much as it is a methodological problem and that the rise of the omnivores provides one useful test case of these issues. In this section I want to explore this connection in more detail. Because omnivores (the cultural egalitarians who mingle high- and lowbrow forms of culture although in a

quite discriminant way) are operationalized in terms of the composition of their cultural practices they have frequently been defined in terms of 'openness' (Ollivier, 2008). But where does this openness come from and is it due to APC effects?

Peterson and Kern's (1996) aforementioned hypothesis posits that age is unlikely to be the primary explanation of why omnivores emerge during the 1980s. Instead they argue that changes in the politics of exclusion, social values, the art world, generational politics, and status-group politics have all led to the emergence of this group. The politics of cultural exclusion has changed over the last 50 years with greater access to higher education and increased economic prosperity which, in turn, has increased access to highbrow culture. Concurrently the mass media has mixed aesthetic tastes and popularized certain forms of folk or lowbrow culture. Societal values have also shifted away from exclusionism toward greater tolerance. The rise of modernism and then post-modernism in the art world also expanded the scope of what could be considered aesthetically praiseworthy despite attempts to stabilise the artistic canon. Youth movements in the 1950s and 1960s shifted the cultural trajectories of maturing adults. Instead of transitioning toward elite arts from popular styles they became less likely than previous cohorts to make that shift. Peterson and Kern (1996) also argue that dominant status groups stopped defining popular culture as crass and instead began to gentrify certain aspects of it, a trend documented in more recent work (Skeggs, 2005).

This set of factors suggests a number of empirically verifiable claims assuming data were available. The rise of higher education should increase the proportion of highbrow consumers, which, in the US at least, appears not to have occurred (Peterson, 2005). Upward social mobility should increase omnivorousness by encouraging individuals to blend the cultural practices of their position of origin with the cultural practices of their position of destination (Daenekindt and Roose 2014). The rise of omnivorousness should be correlated, but presumably with a time lag, with changes in the art world, such as the rise of post-modernism. However, the final two factors regarding youth movements in the 60s and the rise of cultural gentrification are difficult to identify because they are also likely the products of other socio-cultural changes.

What remains unclear from these speculations is the mechanisms that link these changes with particular groups. For example, who will be influenced by changes in the art world and when? Is the impact of social mobility due to changes in occupational status or the rise of higher education? What changed in the 50s and 60s that prompted younger members of the mid-

dle classes to reject elite highbrow culture as they matured? Further, even if such associations could be documented they fail to articulate how such changes would impact behaviour and, more specifically, which groups would experience these shifts. In short, while these speculations provide a useful set of possible explanatory factors they fail to develop a theory of change in cultural practice.

Because these changes are likely to have influenced some social classes more than others (i.e. class-based cohort effects), Bourdieu may be particularly helpful here. Below I summarising some of the empirical evidence around temporal variation in omnivorousness while considering how this Bourdieusian approach to APC effects may help interpret the existing literature.

4.1 Age and omnivores

As I have argued, in both Bourdieu's work and Peterson's work, age is an underdeveloped factor shaping cultural practice and, potentially, omnivorousness. Cultural sociologists are concerned with age-effects associated with how certain life-periods bring with them an increased likelihood of having children, going to university, or retiring, events which also impact leisure time and cultural engagement (Reeves 2014). Evidence associating age with cultural practice appears to vary somewhat depending on the type of activity (Scherger 2009). Music omnivores in the UK and the US were older than those with narrower music tastes (Chan and Goldthorpe 2007, Alderson et al. 2007) while in France middlebrow omnivores were more common among younger cohorts (Coulangeon and Lemel 2010). Younger cohorts are less likely to participate in traditional forms of cultural practice, such as classical music (Bennett et al. 2009) or other highbrow genres (Goldberg 2011). Warde observes that younger respondents 'eat-out' at a wider range of restaurants and more often (Warde et al. 1999). There is no clear association between age and consuming theatre, dance, and/or cinema (Chan and Goldthorpe 2005). Finally, some forms of omnivorousness are more common among younger people (Peterson and Kern 1996, Jaeger and Katz-Gerro 2010).

What explains these patterns? Those who are under the age of 30, or even 25, are likely to have more disposable time because they do not have extensive family commitments. They are more likely to be in education (particular university education) which is correlated with broader cultural practice. Yet, there are mixed results concerning the impact of time constraints and cultural practice. Qualitative data indicates that limited time

is one of the primary reasons individuals give for not participating more in leisure activities (Charlton et al. 2010) while quantitative evidence using time-use diaries indicates that time constraints do not impinge on cultural practice (Sullivan and Katz-Gerro 2007).

Disentangling these age effects requires further analysis around three issues. First, cross-national comparisons. Some of the results already discussed indicate that patterns of music and omnivorous consumption vary across national contexts and explain these different patterns. Second examining age-effects for specific activities. Chan and Goldthorpe's observation that age has no association with attending the theatre, dance productions, or going to the cinema may reflect differences between these activities rather than the lack of an association when they are measured jointly (Chan and Goldthorpe 2005; Bennett et al. 2009). Third, as noted earlier, previous studies have not carefully considered whether age-effects are actually period or cohort effects. For example, most of these studies have used multivariate regression analysis with cross-sectional data and so are unable to identify age-effects. Although those who are younger are more likely to participate in a wide variety of cultural activities, it is unclear how this young-adult disposition translates across the life course when children and employment arrive (Sullivan and Katz-Gerro 2007).

In fact, this has been a challenge in the majority of those studies exploring this thesis (Chan 2010; Lizardo 2006a). Viewing omnivorousness longitudinally suggests the need to examine both coherence and persistence in longitudinal patterns of cultural practice while making space for variation in response to changing family and economic circumstances (Lahire, 2010). For Bourdieu, the habitus would encourage responses to these common changes associated with age in ways that are consistent with the class of origin. Hence, although the degree of omnivorousness may not be constant during such transitions, alterations in the degree of omnivorousness due to age-effects would be largely consistent with those who possess a similar habitus.

4.2 Period and omnivores

With respect to omnivorousness, two distinct period effects need to be disentangled: material access and socio-cultural change (Scherger 2009).

Material access to cultural practices, such as changes in geographical access, can influence cultural practice. The UK Film Council's statistical report for 2010 demonstrates that there is a close, positive correlation between screen density per person and the number of cinema admissions

(Perkins et al. 2011). Additionally, financial access may also play a role. Between 1978 and 1984, during the recession of the early 80s, cinema admissions dropped from 130 million to 54 million, a decline that was unrelated to screen density.

Both of these may explain the rise of the omnivore. The expanding availability of highbrow culture coupled with the pervasiveness of lowbrow culture in the mass media may then have facilitated blending both forms of practice. Over the last 60 years there has been massive economic growth in most western societies coupled with, in many countries, the expansion of welfare states which redistribute wealth through taxation. If economic wealth allows participation in forms of culture that might require greater financial outlays, such as visiting the opera, then economic growth may also increase omnivorousness. Interestingly, these economic factors do not appear to have had a substantial influence. For example, between 1964 and 2004 Denmark experienced economic growth and the expansion of redistributive policies, improving living standards (Jaeger and Katz-Gerro 2010). However, the number of 'eclectic' or omnivorous consumers has only slightly increased and there has not been a reduction in the social gradient in omnivorousness. In short, while changes in material access might have a minor influence on cultural engagement there is not good evidence that such period effects radically alter the trajectories of cultural consumption over a short period of time.

For Bourdieu, this is unsurprising. Greater economic capital does not necessarily lead to a change in the dispositions that constitute the habitus. Greater financial resources may intensify the omnivorousness of those predisposed to be omnivores — increasing the voraciousness — but it may not increase the likelihood of omnivorousness among those who do not value this pattern of cultural practice.

The second type of period effect is socio-cultural change. Peterson and Kern argue that changes in status-politics may explain the rise of the omnivore. If, as discussed previously, diffusion of these new cultural values occurs through cohort replacement then they are best categorized as cohort effects whereas if they diffused within a short period across all cohorts then they could plausibly be described as period effects. Because of the nature of cultural values and attitudes it is most likely that socio-cultural change will actually be diffused via cohort replacement and therefore is a cohort effect, to be discussed in more detail in the cohort section below. More research is needed to understand the impact accessibility through the media but broadly speaking, changes in cultural engagement do not appear to be driven by period effects, as Peterson and Kern suggested.

4.3 Cohort and omnivores

Examination of cohort effects that may be linked with changing socio-cultural norms have not yet been widely taken up in the empirical literature, with two important exceptions. The first is Jaeger and Katz-Gerro's (2010) paper on the rise of eclectic consumer in Denmark and the second is Fishman and Lizardo's (2013) work examining Spain and Portugal. Jaeger and Katz-Gerro observe that in Denmark between 1964 and 2004 there was a small rise in the number of eclectic (omnivore) consumers but which has remained around 10

Fishman and Lizardo (2013) are also sceptical that economic growth or financial barriers are the major drivers of increasing omnivorousness. Instead they argue that omnivorous consumption is a product of institutional and ideological variation between countries that become embodied within education systems. Comparing the different democratic transitions in both Spain and Portugal, Fishman and Lizardo observe that omnivorousness becomes more common among Portuguese people than Spanish individuals but only among those born after the divergent trajectories to democracy in these two countries. They trace the institutional implications of these democratic trajectories and demonstrate that the egalitarianism of the Portuguese democratic transition shapes secondary educational systems creating cultural norms that are distinct from their previously similar neighbours. In short, these education systems mediated the association between political and ideological changes and individual dispositions. Changes in pedagogy and curriculum influence the omnivorous disposition but only among those who were still in secondary education (and, of course, subsequent cohorts).

Fishman and Lizardo's paper offers a provocative hypothesis regarding the implications of education institutions for cohort effects but more work is needed to understand the influence of family background on these class-based cohort effects that are central to Bourdieu's work. Further, there are substantial gaps in our understanding of how different cohorts will then respond to contemporary socio-cultural change later in life. These are themes that need to be addressed in future work.

5 Conclusion

This discussion has important implications for future research. First, by bringing together methodological debates around APC with empirical and theoretical work in cultural sociology, it raises some of the methodological challenges with estimating age-period-cohort effects. These challenges re-

quire careful consideration in future research that is trying to unpack the rise of the omnivore and similar empirical problems but these concerns also pertain to more traditional approaches to analysing APC effects using multivariate regression. Second, these methodological debates also have theoretical implications for how APC effects are conceptualized. I have argued that Bourdieu's account of the habitus suggests that the habitus can be usefully framed as a class-based cohort effect that is responsive to age-effects and period-effects. Third, these debates should also shape future research into the rise of the omnivore. Peterson and Kern have offered a number of plausible hypotheses explaining the emergence of this group and yet these remain largely unexamined nearly 20 years later. APC effects remains an understudied area in cultural sociology but the current context provides a germane moment in which to re-think how these important conversations may help cultural sociologists answer questions central to the field.

6 References

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