

Identity in flux: Ethnic self-identification, and school attrition in Canadian Aboriginal youth[☆]

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Abstract

Much social science research proceeds as though ethnic self-identification (the ethnic category to which persons assign themselves) is a stable characteristic, as true at one time of measurement as another. The purpose of this study was to test this assumption using longitudinal data acquired from the provincial Ministry of Education for every student in British Columbia who started Grade 7 in 1995 and who ever self-identified as Aboriginal. Contrary to expectation, nearly half of this sample did not consistently identify themselves as Aboriginal between 1993 and 2002. For students who changed their declarations over time, five distinct patterns of change in ethnic self-identification were observed. These different patterns were found to be related to the likelihood of dropping out of school. Students who consistently declared their Aboriginality each and every year had the highest school drop-out rate. In comparison, students who at first did not report themselves to be Aboriginal, but later began to consistently declare Aboriginal status had the lowest school drop-out rate. Potential accounts of these differences are offered, and suggestions for future research are advanced.

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1. Introduction

“To exist is to change” — Henri Bergson

Even if change is not, as has sometimes been claimed, the only constant, it is at least a pervasive feature of human growth and development. As we age, our bodies change, as do our beliefs, desires, intentions, personalities, and even our psychological “selves.” Selves are so mercurial, in fact, that psychologists have invested considerable effort in developing theories of identity development that chart such changes (Erikson, 1963; Marcia, 1987).

Although some degree of personal change is inevitable, a few markers of selfhood are commonly taken to be fixed and ostensibly beyond the reach of change. One’s sex, for example, is typically regarded as such a fixed attribute of the self. So too, one might initially suppose, is one’s ethnic identification (Eschbach & Gómez, 1998). That is, on the face

[☆] In Canada, the term ‘Aboriginal’ refers to all indigenous people. Aboriginals can be further separated into three groups: (a) The Inuit, indigenous people of the North; (b) First Nations, who are indigenous people belonging to recognized bands other than the Inuit; and, (c) The Métis, who, in the first instance, are descendents of European fur traders and First Nations women.

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of it, it seems reasonable to assume that a person who declares him or her self to be a member of one or another ethnic group will go on self-identifying in the same fashion on all subsequent occasions.

At the same time, it is well known (e.g., Berry, 1997; Phinney, 1992; Ryder, Alden, & Paulus, 2000; Ward & Rana-Deuba, 1999) that both adolescents and adults can and do vary in their *ethnic identity*. Different researchers have defined this term in a variety of ways: sometimes as the ethnic component of social identity; sometimes as the strength of belonging or commitment to one's ethnic group; sometimes as one's attitudes towards one's ethnic group; and sometimes as a sense of shared attitudes or values with one's ethnic community (Phinney, 1990). For the most part, however, all of these different versions of *ethnic identity* treat *ethnic self-identification* (i.e., the act of identifying the ethnic group of which one is a member) as a given. That is, while some variation might be expected in the extent to which people choose a different label to apply to themselves (e.g., African-American instead of Black), actual membership in one or another ethnic group generally is taken to be a constant from one measurement occasion to the next. A person may change from identifying as "Black" to "African-American" but would not be expected to suddenly identify as "White."

Notwithstanding such conventional assumptions, the research presented here challenges the notion that ethnic self-identification is somehow fixed. In doing so, we add to a small but growing body of literature that considers the prospect that ethnic self-identification may, in fact, vary across time. This new literature, reviewed in detail below, has raised the serious prospect that it is a mistake to regard ethnic self-identification as a fixed and unchanging attribute of the self (Hermans & Kempen, 1998; Stephan & Stephan, 2000). For example, emerging longitudinal evidence involving adolescent respondents suggests that many young persons actually do change their answers to questions of ethnic self-identification from one declaration to the next (Eschbach & Gómez, 1998; Portes & Rumbaut, 2001).

The present study takes its lead from these earlier studies, but differs from them in three ways. First, while the already available research on changes in ethnic self-identification has focused on immigrants to the United States, the present research focuses on a large group of Canadian adolescents who are, by various criteria, commonly understood to be Aboriginal persons. Despite a broad national commitment to "multiculturalism," the history of the colonization of Canadian Aboriginal peoples (like that of many Indigenous groups) has included a variety of assimilationist pressures (e.g., forced residential schooling) that may make ethnic self-identification an especially complex issue. Second, while previous studies have looked at changes in ethnic self-identification across only two points in time, the longitudinal data reported here span a decade, and include up to ten annual self-declarations of "Aboriginal ancestry." While a line connecting any two points in time is inevitably limited in its interpretation, a line connecting ten such points can reveal more complex patterns of change. Finally, while previous researchers have considered possible variability in ethnic self-identification, it is uncommon to also ask how such changes might impact on any "outcome" measure of social adaptation. The present study breaks this mould by examining the relation between changes in ethnic self-identification and school drop-out rates. This outcome measure was chosen for two reasons. First, many studies have demonstrated a link between matters of ethnicity and educational outcomes (e.g., Chavous et al., 2003; Fordham & Ogbu, 1986; Oyserman, Harrison, & Bybee, 2001; Smith, Atkins, & Connell, 2003). Second, dropping out of school is a particularly pressing problem among Canadian Aboriginal youth. In British Columbia (B.C.), where this study was conducted, the drop-out rate for Aboriginal youth in 2001 was 66% while the corresponding drop-out rate for non-Aboriginals was 24% (British Columbia Ministry of Education, 2001). In short, the drop-out rate for Aboriginal students was almost as high as the school completion rate of non-Aboriginals — figures that, over the years, have improved only slightly (British Columbia Ministry of Education, 2002, 2003).

Before turning to these new data, however, we first review an older literature that tracks the development of young children's understanding of matters of ethnic self-identification. This research has demonstrated that very young children are unclear and easily confused about their ethnic group membership, but that this confusion largely disappears by the age of ten (Aboud, 1984; 1988; Aboud & Ruble, 1987; Clark & Clark, 1947; Quintana 1994; Quintana, Ybarra, Gonzalez-Doupe, & De Baessa, 2000; Semaj, 1980; Vaughan, 1963). In the face of these results, we then review the small handful of studies that have investigated changes in ethnic self-identification in adolescents, as well as in adults, before turning to the present study.

1.1. Pre-adolescents' understanding of ethnic self-identification

Existing work on young children's understanding of ethnic self-identification has primarily investigated two questions. The first of these asks when, in the course of their growing up, do young children begin to use people's surface characteristics, such as their skin color, as a basis for applying various ethnic labels? The second asks when

children begin to see that there is more to the question of ethnic self-identification than the presence or absence of such ‘skin deep’ markers.

Research regarding the first of these questions has demonstrated that children as young as 6 years of age apply labels such as Black, White and Chinese primarily on the basis of skin color. Perhaps the earliest example of this work is [Clark and Clark’s \(1947\)](#) now classic dolls study. These researchers presented children with Black and White dolls and asked them, among other things, to indicate which doll looks like a “white child” and which doll looks like a “colored child.” They, and the numerous other researchers who have followed them, found that by 6 or 7 years old, children could correctly identify the dolls. Subsequent research indicated that like-minded 6- or 7-year-olds could also separate and label Chinese dolls and White dolls, but that they are typically 9 or 10 years of age before they can correctly identify dolls representing ethnic groups that are perceptually less distinct from Caucasians (e.g., Hispanic and Aboriginal dolls). Furthermore, children of this age also seem to be able to accurately identify their own ethnic group, though this does not always match their success in the doll task (see [Aboud, 1988](#), ch. 4, for a review of this literature).

Being able to label oneself as a member of an ethnic group, however, does not, in and of itself, necessarily indicate a consistent understanding of ethnic self-identification. In the doll task described above, when 6- and 7-year-old minority children were asked which doll was most like themselves, the majority chose the White doll. That is, while minority children could correctly label the ethnic group membership of the dolls, and even correctly label themselves, many still chose to say that the White doll was most like them ([Corenblum, 1996](#)). This was also found to be true in one study of Aboriginal children attending a school where Aboriginals made up the majority of the population ([Annis & Corenblum, 2001](#)). It is, of course, quite possible, perhaps even probable, that the ways in which children answered this question are more a reflection of the higher-status of White people in North American society than they are about matters of ethnic self-identification. Nevertheless, this earlier work serves to highlight the complexity of issues regarding ethnic identification. Interestingly, [Corenblum et al.](#), who have investigated this phenomenon among Aboriginal children, found that more of their respondents identified with the Aboriginal doll when the experimenter was also Aboriginal ([Corenblum & Wilson, 1982](#)), or when the task was administered to them in their Native language ([Annis & Corenblum, 2001](#)).

Research concerning the second of these questions – about whether ethnic identification is more than just “skin deep” – has demonstrated that young persons also typically believe that matters of appearances are the sole determinants of ethnic group membership. Up until the age of 9 or 10, Black children, who appropriately labelled dolls at 6 or 7 years, often report that a Black person can become a White person if they put on blond wig and white make-up, or even if they simply want to be White ([Semaj, 1980](#); [Vaughan, 1963](#)). Furthermore, as demonstrated by [Aboud \(1984\)](#), this phenomenon is not restricted to minority children. In [Aboud’s \(1984\)](#) study, children belonging to a variety of different ethnic groups were presented with a series of photos in which a boy, labelled as an Italian-Canadian, gradually donned Aboriginal clothes and headdress. Children younger than 8 years old (regardless of ethnic group) thought, for example, that the boy decked out in Aboriginal garb was now Aboriginal, whereas those 8 or older regularly maintained that his ethnic identification remained constant. In [Aboud’s](#) words, children younger than 8 who believe that a person’s ethnic group membership can change are “not aware of this deeper meaning of ethnicity; they are fooled by superficial features” (1988, p. 49). As such, [Aboud](#) draws a distinction between ethnic awareness and ethnic constancy. That is, young children can be aware of ethnic group membership simply by associating it with superficial features, and ordinarily do this for some years before understanding its ‘deeper’ meaning as a constant feature of the self.

Notwithstanding this earlier research concerning children younger than eight or nine, related evidence involving adolescents suggests that, by their teenage years, most young people clearly recognize that changes in the way one looks do not automatically signal a change in one’s ethnic identification ([Aboud & Ruble, 1987](#); [Quintana 1994](#); [Quintana et al., 2000](#)). That is, on these accounts, adolescents do not typically equate ethnic identification with mere appearance, and so understand that simple changes in appearance do not dictate changes in one’s ethnic self-identification. It would seem to follow from all of this that, should teenage youths actually report themselves to have undergone some shift in ethnic self-identification, they almost certainly mean to describe something more than superficial changes in their hairstyle, dress, or other manifest features. The section to follow briefly reviews the relatively sparse literature meant to demonstrate that such changes in ethnic self-identification actually do sometimes occur during adolescence and adulthood.

1.2. Ethnic self-identification change throughout adolescence and adulthood

As suggested above, most of the available psychological literature concerned with ethnic self-identification appears to have proceeded on the untested assumption that, beyond the ordinary confusions of early childhood, people

automatically consider ethnic self-identification to be a fixed attribute. Take, for example, Aboud's (1988) assertion that children who have reached adolescence have achieved "ethnic constancy," defined as identifying and re-identifying one's self as belonging to the same ethnic group. Nevertheless, a small handful of more recent studies have explored the possibility that ethnic self-identification may, in fact, change over time. Stephan and Stephan (2000), for example, consider ethnic self-identification to be "neither an objective nor stable feature of social life, but one that is subjective and unstable" (p. 543). Ethnic self-identification, these authors maintain, is socially constructed and, consequently, can change according to context. While they claim that there are limits to this malleability, in one study, 89% of mixed-ethnicity participants reported that they changed their ethnic self-identification in different situations (Stephan, 1991). Other researchers have similarly observed changes in ethnic self-identification at certain transitional points in the life-course, particularly when adolescents leave home to begin life as adults, or when they marry (Farly, 1991; Lieberman & Waters, 1993; Waters, 1990; cited in Stephan & Stephan, 2000).

Similarly, Hermans and Kempen (1998) argue that increasing globalization, mobility and cultural interaction has led to a more complex view of the world in which "self or identity can be conceived of as a dynamic multiplicity of different and even contrasting positions or voices that allow mutual dialogical relationships.... Different and contrasting cultures can be part of a repertoire of collective voices playing their part in a multivoiced self (p. 1118)." On such an account, it would not be surprising if people varied in their ethnic self-identification across time and situation.

Such a shift in ethnic self-identification can also be inferred in Eschbach's (1993) demographic study of the recent and dramatic growth in the U.S. American Indian population. Using U.S. Census data and estimations of fecundity, Eschbach calculated that much of the apparent growth in the American Indian population between 1930 and 1990 could not reasonably be attributed to increased birth rate or migration. Rather, he concluded that this growth was most likely due to an increasing number of individuals who newly classified themselves as American Indian. Guimond (2004), who observed this same phenomenon in Canada's Aboriginal population between 1971 and 1996, drew the same conclusions.

Although these cited studies suggest that ethnic self-identification *may* be malleable in adults, two studies have actually tracked how some adolescents change their ethnic self-identification over time. In a large-scale study, Portes and Rumbaut (2001) interviewed second-generation immigrant adolescents from either the Miami/Ft. Lauderdale area or the San Diego area. At the first point of measurement, the sample included 5262 thirteen- to seventeen-year-old adolescents of foreign-born parents who had been in the U.S. for at least 5 years. Three to four years later, 4288 of these students were interviewed again. While this study investigated many other aspects of their experience as second-generation immigrants, these researchers also asked each student to identify their ethnic group membership at both time points — documenting how, in some cases, these declarations shifted over time. Since their study included many different ethnic groups, students' ethnic declarations were classified as either of *National Origin* (e.g., Columbian), *Pan-ethnic* (e.g., Latino), *Hyphenated-American* (e.g., Mexican-American), or *American*. Interestingly, over the 3 to 4 years between interviews, these adolescents tended to shift away from *American* declarations and more towards declarations that reflected the ethnic self-identifications of their immigrant parents. *National Origin* declarations increased from 27.7% to 34.6%, while *Pan-ethnic* declarations increased from 15.8% to 26.5%. At the same time, *Hyphenated-American* declarations decreased from 40.8% to 30.6% and *American* declarations dropped from 12.6% to 3.5%. In total, only 44% of these students maintained their original ethnic self-identification over time, while 56% changed their declaration. Portes and Rumbaut report that those who had a stable ethnic self-identification demonstrated a lower preference for English and for American ways of doing things, and also reported more experiences and expectations of unfair treatment because of their ethnic self-identification. This analysis did not, however, consider differences between those who shifted away from or toward an *American* self-identification.

Eschbach and Gómez's (1998) longitudinal study of Hispanic high school students appears to be the only other study that directly charts changes in ethnic self-identification during the adolescent years. These authors also asked adolescents to report their ethnic self-identification at two separate moments in time (2 years apart). They observed that 16% of their sample of high school students declared themselves Hispanic at the first point of data collection, but did not do so again 2 years later. The opposite pattern of change, from a non-Hispanic to Hispanic ethnic self-identification was observed in another 21% of their sample. In total then, over one-third of their sample changed their ethnic self-identification during this two-year period. Logistic regression analyses demonstrated that the subset of students who changed their ethnic self-identification from Hispanic to non-Hispanic were different in many respects from their peers who did not change. Those who changed their self-identification in this way tended to have been taught in classrooms, and lived in areas, with a lower percentage of Hispanic persons than was true of those who were consistent in their

ethnic self-identification. They were also less likely to speak Spanish, less likely to live in rural areas, and were of higher socioeconomic status (SES). The authors, however, did not report any analyses of those who demonstrated the opposite pattern (i.e., switching from non-Hispanic to Hispanic self-identifications).

It is, of course, unclear whether the same variables that predicted ethnic switching in Hispanic adolescents, or adolescents from other immigrant groups, might also operate in the sample of Aboriginal adolescents who are the focus of the present study. Nevertheless, the research reported above demonstrates that change in ethnic self-identification during adolescence is a real phenomenon, occurring as it did in 37% of Eschbach and Gómez's sample and in 56% of Portes and Gumbaut's sample.

1.3. Ethnic self-identification matters

The review of research to this point has suggested that ethnic self-identification may be somewhat malleable during the adolescent years. While changes in ethnic self-identification are interesting in their own right, it also matters whether such patterns of change have any important implications for other aspects of adolescent development. As mentioned earlier, there has been virtually no research that relates ethnic self-identification to social outcomes, principally because the very possibility of ethnic self-identification switching has rarely been entertained. Nevertheless, a great deal of research has shown that people vary in the degree to which they think about and value their *ethnic identity*, and that this variance usefully predicts various important social outcomes. One or another aspect of individuals' ethnic identities has, for example, been shown to be related to differences in coping strategies, aggression, self-esteem, perceived stress, overall mental health, and vocational identity in women, to name just a few such outcomes (Caldwell, Zimmerman, Bernat, Sellers, & Notaro, 2002; Cross, 1991; Greig, 2003; Jackson & Neville, 1998; McMahon & Watts, 2002; Verkuyten, 2003). Relating specifically to the problem of school attrition (the outcome measure examined in this study), various studies have also investigated the association between the strength of ethnic identity and academic achievement (Chavous et al., 2003; Fordham & Ogbu, 1986; Oyserman et al., 2001; Smith et al., 2003). Although this earlier research suggests that there are significant relations between academic achievement and *ethnic identity*, as yet there are no studies relating educational outcomes to shifts in *ethnic self-identification*.

The research reported in this study is meant to take the first steps in exploring this possibility. To accomplish this aim, a cohort was chosen that included all Aboriginal students in the province of British Columbia who started Grade 7 in 1995. These students were asked to indicate whether they were "of Aboriginal ancestry" for each and every year between 1993 and 2002. These serial declarations were then examined to determine whether different response patterns could be detected, and whether these patterns were related to school attrition rates.

2. Method

2.1. Participants

The participants in this study included every student in British Columbia (Canada) who started Grade 7 in 1995 and who indicated they were "of Aboriginal ancestry" anytime between 1993 and 2002. In total, there were 4307 such students, with an average age of 12.1 years when they entered Grade 7. The earliest point of data collection, however, was 2 years before they entered Grade 7, so the average age in this study ranged from 10.1 years old (in September 1993) to 19.1 years old — the last available point of data collection (September 2002). The starting point of 1993 was chosen because the reviewed research suggests that before the age of 10 children do not yet have a mature understanding of ethnic identification.

2.2. Data

The raw data were provided by "Edudata," a non-profit, publicly-funded agency charged with making educational data collected by the Ministry of Education in British Columbia (B.C.) available to the research community. Each September, the Ministry of Education, through school administrators and teachers, collects information on each student in B.C., which is recorded on "Form 1701." In addition to other identifying information, students were asked if they are "of Aboriginal ancestry." While these data are collected by teachers and administrators, and not by researchers, the Ministry explicitly instructs school officials (both on the form and on a separate instruction sheet) to ensure that these

declarations are made by the students themselves, rather than being made on the basis of teachers' assumptions about students' ethnic identification. We also have the further assurance that the Ministry refers to these data as self-declarations in their own publications (B.C. Ministry of Education, 2001, 2002, 2003). While we are open to the possibility that some adolescents may believe that they belong to more than one ethnic group, the nature of this data is dichotomous, and no other ethnic information is collected by the Ministry. This means that if a student wants to indicate any kind of attachment to being Aboriginal, then declaring oneself to be "of Aboriginal ancestry" is the only school-based way to do so. Altogether, between the years 1993 and 2002, there were up to 10 opportunities for each student to declare his or her Aboriginality.

Although the data made available by "Edudata" included all applicable students in the public and private school system for the entire province, this cohort did not include the relatively small number of students who attended schools run exclusively by Aboriginal bands. These schools are federally funded and are consequently not obligated to report attendance or grade information to the provincial Ministry of Education. Though school attrition data for these students were not available, the federal government was able to determine that, based on the number of Grade 7 students who were in band-run schools in 1995, only approximately 260 students were missing from our cohort (B. Laskin, personal communication, January 24, 2005). While this represents only 7% of our current sample, and likely has little influence on the overall picture of drop-out rates, it is still possible that those students who attend a band school exhibit different relations between drop-out rates and ethnic self-identification patterns, compared to those who do not. As such, the results of our analyses need to be interpreted with the caveat that they may not necessarily apply to those few students who, beyond the age of 10, attend band-run schools.

The available data also include the graduation date for each student in our cohort. Given that our sample started Grade 7 in September of 1995, proceeding through school in a timely fashion would have led each of them to reach Grade 12 in September of 2000, and to graduate in June of 2001. The data include information on these students up until August 2003, allowing those that might have moved more slowly through the system two extra years in which to complete high school. Expanding the period of time over which graduation data are collected in this way is common in research on school drop-out rates (Applied Research Branch, 2000). This expanded data-window minimizes the risk of misclassifying individuals who simply move more slowly through the system as drop-outs. That said, if students did not have a graduation date within this expanded window of time, they were considered to have dropped-out. Although it is possible that a student who appeared to have dropped-out of the present sample may have simply moved out of province, Aboriginal out-migration from B.C. is known to be extremely rare (D. Beavon, personal communication, December 9, 2003). Finally, the data provided also indicated whether or not a given student lived on an Aboriginal reserve.

2.3. Ethnic self-identification pattern classification

As described above, all participants declared whether or not they considered themselves to be "of Aboriginal ancestry" each year between 1993 and 2002. These year-to-year declarations were classified into five different longitudinal patterns of ethnic self-identification, as described below:

- (1) *Always Declared* — These students answered "yes" (that they were of Aboriginal ancestry) each and every time the question was asked of them (e.g., YYYYYYY, etc.).
- (2) *Declared Once* — These students answered "yes" on one occasion, but "no" on every other occasion (e.g., NNNYNNN, etc.).
- (3) *Previously Declared* — These students began by consistently answering "yes" (where "consistently" means doing so at least twice), and then switched to "no" and consistently (again, meaning at least twice) answered "no" for the remainder of their time in school (e.g., YYNNNNN, etc.).
- (4) *Subsequently Declared* — These students demonstrated the reverse pattern to the "Previously Declared" group, initially answering "no" (at least twice) and later switching to a consistent series of "yes" responses (at least twice) (e.g., NNNYYYY, etc.).
- (5) *Inconsistently Declared* — These students switched between answering "yes" and answering "no" two or more times during their school years (e.g., NNYNYYN, etc.).

There were 52 students for whom not enough data was available to enable classification into one of these groups. These individuals were dropped from subsequent analyses. A further 18 students were excluded because they entered

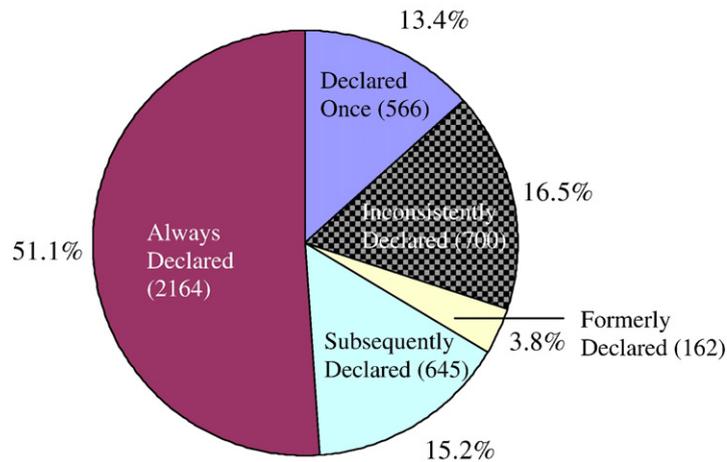


Fig. 1. Distribution of the different identification groups in our sample (numbers in parentheses indicate the actual number of students demonstrating each pattern).

Grade 7 at a younger age than other students in their cohort (i.e., below the age of eleven). The resulting total sample size was 4237.

3. Results

For this sample, the mean age of the students the year they entered Grade 7 was 12.1 years. There were 2169 boys and 2068 girls. Although the difference between their mean ages was statistically significant, mean (and *SD*) = 12.2 (0.7) years for boys and 12.1 (0.6) years for girls, $F(1, 4235) = 24.98, p < .001; \eta^2 = 0.152$, this difference is likely to stem from the large sample size. Age differences were also found between school drop-outs and non-school drop-outs, as well as between the five different self-identification patterns, but these differences also had small effect sizes ($\eta^2 = 0.132$ and $\eta^2 = 0.007$, respectively).

Table 1
Multiway frequency analysis between sex, reserve, drop-out, and group

Dependent variable	<i>df</i>	χ^2	<i>p</i>
4-way effect			
Sex × Reserve × Drop-Out × Group	4	4.219	.3772
3-way effect			
Sex × Reserve × Group	4	0.494	.9741
Sex × Reserve × Drop-Out	1	0.244	.6216
Sex × Drop-Out × Group	4	1.098	.8945
Reserve × Drop-Out × Group	4	12.060	.0169*
2-way effects			
Sex × Reserve	1	0.224	.6360
Sex × Group	4	0.763	.9433
Reserve × Group	4	1606.523	< .0005*
Sex × Drop-Out	1	25.438	< .0005*
Reserve × Drop-out	1	8.729	.0031*
Drop-Out × Group	4	92.263	< .0005*
1-way effects			
Sex	1	2.408	.1207
Reserve	1	649.226	< .0005*
Drop-Out	1	56.100	< .0005*
Group	4	2445.146	< .0005*

* $p < .05$.

3.1. Differences in drop-out rates

Students were classified into five different self-identification groups as described in the Method section, and the resulting distribution is summarized in Fig. 1. As can be seen by an inspection of Fig. 1, a slight majority of students (51.1%) were perfectly consistent in their declarations of their Aboriginality. Just under half of the students changed their declarations at least once, and 16.5% of them (the Inconsistently Declared Group) changed these declarations more than once. The incidence of change in ethnic self-identification seems sizable in this sample, and similar to the incidence of change in ethnic self-identification reported in previous studies with a more limited time window (Portes & Rumbaut, 2001).

Overall, the drop-out rate for this sample was 55.7%, comparable to an Aboriginal drop-out rate based on a different cohort of 57.5% reported by the Ministry of Education (B.C. Ministry of Education, 2001). To check for differences in drop-out rates between the five self-identification patterns, effects of sex, and effects of living on a reserve, a $5 \times 2 \times 2 \times 2$ (Identification Group \times Sex \times On/Off reserve \times Graduated/Dropped-out) Multiway Frequency Analysis was performed on the data (see Table 1). This analysis revealed no four-way effect, $\chi^2(4, N = 4237) = 4.219, p = .38$, and the ratio of males to females did not significantly differ across the self-identification groups, $\chi^2(4, N = 4237) = 0.76, p = .94$. There was, however, a significant effect for the sex by drop-out rate interaction, $\chi^2(1, N = 4237) = 25.434, p < .001$. Proportionally more boys than girls dropped-out of school in our sample, with the drop-out rate for boys being 59.6% while the drop-out rate for girls was 51.7%. This modest difference between males' and females' drop-out rates is again comparable to B.C. Ministry of Education findings, both for Aboriginals and non-Aboriginals (B.C. Ministry of Education, 2001, 2002, 2003).

The three-way interaction between Self-identification Group, On/Off reserve, and Graduated/Dropped-out was also statistically significant, $\chi^2(4, N = 4237) = 12.06, p = .02$. To understand this interaction, the distribution of Self-identification Groups was examined by first comparing the 1300 students who did live on a reserve (30.7% of the sample) with the 2937 students who did not. While those who did not live on a reserve had a distribution of Self-

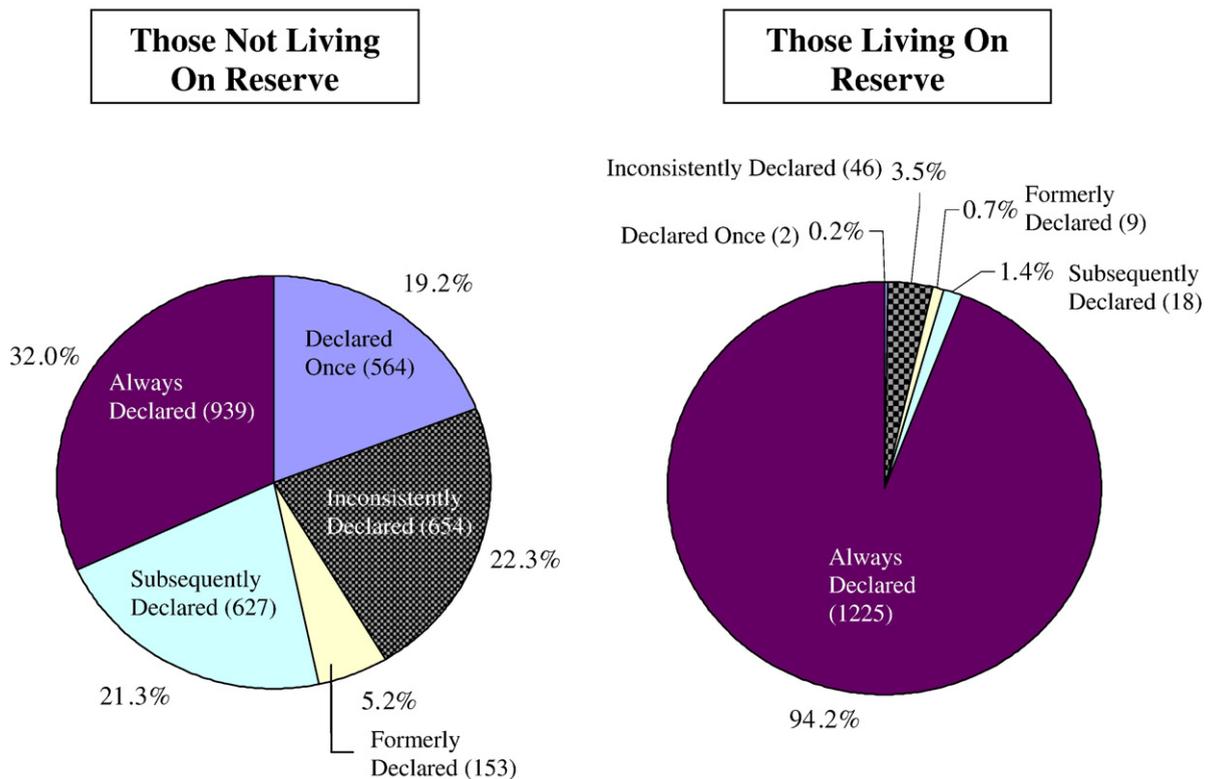


Fig. 2. Differences in the distribution of identification groups between those students living on reserve and those living off reserve (numbers in parentheses indicate the actual number of students demonstrating each pattern).

Table 2

Multiway frequency analysis between drop-out and group for those who do not live on a reserve

Dependent variable	df	χ^2	p
2-way effect			
Drop-out \times Group	4	91.999	< .0005 *
1-way effects			
Drop-Out	1	3.338	.0677
Group	4	645.773	< .0005 *

* $p < .05$.

identification groups that looks much like the distribution for all students, over 94% of those who lived on reserve exhibited the Always Declared ethnic self-identification pattern (see Fig. 2).

This predominant pattern for those who live on reserve makes it difficult to detect any difference between self-identification groups, so this three-way interaction was further analyzed by conducting a separate two-way Multiway Frequency (Identification Group \times Graduated/Dropped-out) analysis considering only on those students who did not live on a reserve. Still, it should be noted that the drop-out rate for those living on a reserve was 64.9% — substantially higher than the corresponding drop-out rate of 51.7% for those not living on a reserve, $\chi^2(1, N = 4237) = 8.73, p = .003$.

Restricting our sample to those students who did not live on a reserve, a two-way (Identification Group \times Graduated/Dropped-out) Multiway Frequency Analysis resulted in a significant Graduated/Dropped-out by Self-identification Group interaction, $\chi^2(4, N = 2937) = 91.999, p < .0001$ (see Table 2), indicating that the drop-out rate calculated for the present sample differed significantly across the five Self-identification Groups. The drop-out rates of the five groups are illustrated in Fig. 3. For post-hoc analyses, we used the Gardner (2001) method of conducting every possible pairwise contrast with a Bonferroni correction, since a Monte Carlo study has shown this method to have the best match between nominal and reported alpha compared to five other post-hoc methods (MacDonald & Gardner, 2000). With five groups, this means 10 possible pairwise contrasts, so an alpha level of .005 was chosen. Table 3 displays the pairwise contrasts that confirm the picture evident from Fig. 3 — that is, the Subsequently Declared group (i.e., those who at least twice declared themselves to be non-Aboriginal, but went on to consistently assert their Aboriginality) had a lower drop-out rate than any other group. The Always Declared Group (i.e., those who consistently declared their Aboriginality every year), by contrast, had a drop-out rate higher than any other group (although two of these contrasts are on the cusp of significance). The three remaining groups were not significantly different from each other.

One other result is worthy of note. Although students who lived on reserve had a much higher drop-out rate than those who did not, examination of the various patterns of ethnic self-identification and their relationship to drop-out rates reveals that this higher drop-out rate can largely be accounted for by the predominance of the Always Declared pattern amongst students living on reserve. If we restrict ourselves to looking only at those students who exhibited the Always Declared pattern, then the difference in drop-out rates between those that lived on reserve (64.7%) and those

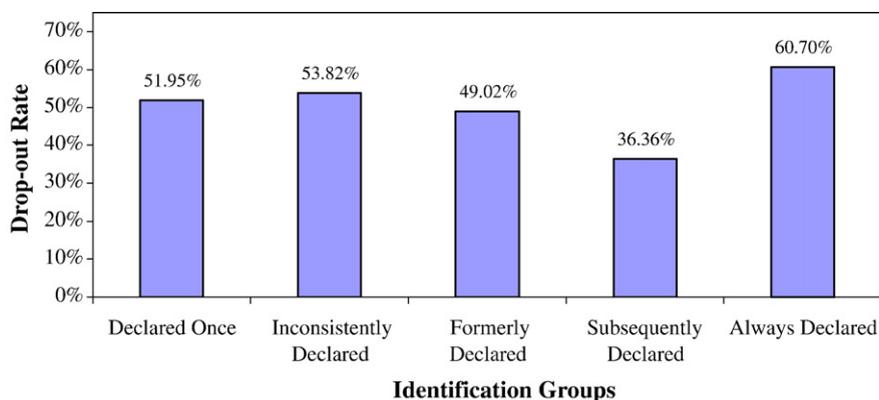


Fig. 3. Drop-out rates of the different identification groups for those who do not live on reserve.

Table 3
Post-hoc analyses of differing drop-out rates across identification groups

Contrast	χ^2	df	p
Subsequently Declared vs. Formerly Declared	8.292	1	.004 *
Subsequently Declared vs. Inconsistently Declared	39.381	1	< .0005 *
Subsequently Declared vs. Declared Once	29.313	1	< .0005 *
Always Declared vs. Subsequently Declared	89.120	1	< .0005 *
Always Declared vs. Formerly Declared	7.427	1	.006
Always Declared vs. Inconsistently Declared	7.485	1	.006
Always Declared vs. Declared Once	11.040	1	.001 *
Formerly Declared vs. Inconsistently Declared	1.148	1	.284
Formerly Declared vs. Declared Once	0.414	1	.520
Inconsistently Declared vs. Declared Once	0.426	1	.514

* $p < .005$.

that did not (60.7%) is reduced substantially — reduced, in fact, to the point where the effect of living on or off reserve is no longer statistically significant, $\chi^2(1, N = 2164) = 3.706, p = .054$.

3.2. Differences in age at time of dropping out

A separate analysis was conducted to investigate whether there was any effect of age on the rate at which students dropped-out of school. Overall, the average age of dropping out was 17.84 years, and less than 15% of the sample was younger than 16 years old at the time of dropping out — a result that suggests that dropping out seems to be an option that is predominantly exercised by older adolescents. To explore whether age of dropping out differed across different factors, a $5 \times 2 \times 2$ (Identification Group \times Sex \times On reserve/Off reserve) ANOVA was conducted on drop-out age. This analysis found no effect for Sex or On reserve/Off reserve and no significant interactions. There was a significant effect for Self-identification Group, $F(4, 2342) = 4.379, p = .002$. Post-hoc analyses demonstrated that the Inconsistently Declared group dropped-out at significantly older ages compared with the Declared Once and the Always Declared groups, but not compared with any of the other groups. The largest mean difference between these groups, however, amounted to less than half of a year in age. This translates into a very small effect size ($\eta^2 = 0.007$) and probably only achieved statistical significance because of the power of the study.

4. Discussion

The present data demonstrate that many Canadian Aboriginal adolescents can and do change their ethnic self-identification over time. Almost half of the present sample changed their ethnic self-identification across the 10-year window for which data were available. The proportion of individuals who changed their ethnic self-identification in our sample is somewhat higher than the proportion reported in Eschbach and Gómez's (1998) sample of Hispanic adolescents, and similar to the proportion reported in Portes and Rumbaut's (2001) sample of second-generation immigrants in the U.S. In addition to the confirmation that ethnic self-identification can be malleable, the longer time-span of the present study has enabled us to demonstrate that such changes in ethnic self-identification are not random. Instead, they can be systemically categorized into several distinct and interpretable patterns. The one group in our sample whose "on again, off again" pattern of ethnic self-identification seemed to vary most randomly, the Inconsistently Declared group, represented only 16.5% of all students. This supports the contention that these patterns of ethnic self-identification are meaningful — an assertion bolstered by the finding that different groups of students, who displayed different patterns of self-identification, had markedly different high school drop-out rates.

The data reported above also confirm what other studies have sadly concluded — Aboriginal drop-out rates, overall, are extraordinarily high. Similar to the present results, the B.C. Ministry of Education recently reported the Aboriginal drop-out rate to be 57.5% (compared to a drop-out rate for non-Aboriginals of 20.8% — B.C. Ministry of Education, 2003). This evidence that the public school system fails to retain the vast majority of Aboriginal youth nevertheless represents a slight improvement over conditions in the recent past. Only 5 years ago, the B.C. provincial Aboriginal drop-out rate was 66.2% (B.C. Ministry of Education, 2003). This unhappy state of affairs highlights the problem of Aboriginal school attrition and the need to understand it more completely. This need is especially pressing given the

fact that Aboriginal adolescents who drop-out of school are also known to experience higher rates of depression, suicide and emotional difficulties; are more likely to be involved in risky behaviours such as substance abuse, violence, and sexual promiscuity; and are more prone to being incarcerated (Applied Research Branch, 2000; Cummins, Ireland, Resnick, & Blum, 1999; First Nations Education Council, n.d.; Jessor, Turbin, & Costa, 1998; Tonkin et al., 2000; van der Woerd & Iarocci, 2002).

At first glance, the present data represent the same disheartening figures that are regularly reported by the B.C. Ministry of Education. However, these new findings go beyond those familiar summary statistics, and offer some modest hope of better understanding the phenomenon of school drop-out in Aboriginal youth. Usual Ministry of Education figures obscure differences among what the present data demonstrate to be distinctive groups with differential drop-out rates. The difference between the ethnic self-identification group with the highest drop-out rate (the Always Declared group) and that with the lowest drop-out rate (the Subsequently Declared group) was 24.3%. Not only does this difference represent a sizable advantage for the Subsequently Declared group, but it also brings their drop-out rate (36%) down to a level more comparable to that of their non-Aboriginal counterparts (21%). Separate from any rough-hewn comparison with non-Aboriginals, the present dataset demonstrates that there are identifiable groups of Aboriginal youth who, based on how they report their ethnic self-identification over time, are more or less likely to finish school.

What remains unclear, however, is precisely why the particular ways in which these adolescents shifted their ethnic self-identification affected school drop-out rates. Why was the Subsequently Declared pattern associated with lower drop-out rates compared to all other patterns, and why was the Always Declared pattern associated with the highest drop-out rate? Furthermore, consider the fate of the Declared Once group. This is a group of individuals who, given 10 possible opportunities, only declared themselves to be Aboriginal on a single occasion. It is easy to imagine that many of the young people in this group simply made a single (i.e., never repeated) clerical error and did not, in fact, ever consider themselves to be Aboriginal at all. Nevertheless, this one-time declaration of Aboriginality was associated with a 31% increase in drop-out rate (i.e., the Declared Once drop-out rate was 52.0%, while the non-Aboriginal drop-out rate was 20.8%). The question thus remains: why does declaring oneself to be Aboriginal only once, surrounded by up to nine declarations of non-Aboriginality, increase one's likelihood of dropping out of school? Unfortunately, while the evidence currently in hand raises these and other important questions, it does little to answer them. In the space below, we consider some potential explanations. While these suggestions are little more than guarded hypotheses meant to make some interpretative sense of these findings, they will at least hopefully offer possible avenues for future research.

4.1. Possible accounts for different school drop-out rates across ethnic self-identification groups

Because Eschbach and Gómez's (1998) study also examined changes in ethnic self-identification over time, their findings could suggest some potential explanations for the results presented above. For example, Eschbach and Gómez found that those Hispanic youths who switched their ethnic self-identification from Hispanic to non-Hispanic were of higher SES. Given research that suggests that higher SES is linked to lower drop-out rates in Canada (Applied Research Branch, 2000), Eschbach and Gómez's account would seem to suggest that those who switch their ethnic self-identifications away from being Aboriginal would be of higher SES, and therefore would be less likely to drop-out. The data, however, do not support that contention, since the group who switched away from an Aboriginal identification (the Previously Declared group) did not differ from the Inconsistently Declared and Declared Once groups in terms of drop-out rate. Instead, those students who showed the opposite pattern (the Subsequently Declared group) – that is, those who changed their declaration from non-Aboriginal to Aboriginal – had the lowest drop-out rates. Consistent with Eschbach and Gómez (1998), however, is the fact that those who maintained their ethnic self-identification (the Always Declared), and who (interpolating from Eschbach and Gómez, 1998) were of lower SES, did have the highest drop-out rate. This one congruence, however, does little to explain all the differences between the ethnic self-identification patterns reported here.

Perhaps, then, existing work on identity development may offer a more cogent explanation of the data. It is possible to conceive of our patterns of ethnic self-identification as akin to Marcia's changing identity stances (Marcia, 1987). That is, the different self-identification patterns observed here may be expressive of Marcia's various stages of Identity Diffusion, Foreclosure, Moratorium, and Identity Achieved. Indeed, this is the approach taken by Phinney (1990), and Phinney and Chavira, (1992) to explain developmental changes in ethnic identity, although Phinney maintains that it is

difficult to distinguish between Diffusion and Foreclosure and collapses these two into an Unexplored category. From the perspective of Marcia and Phinney, changes in ethnic self-identification during adolescence might be seen as an ordinary part of gradually settling into an ethnic identity. Interpreted in this light, the Always Declared group might be seen as equivalent to what Phinney terms an Unexplored identity — these adolescents have never declared themselves to be anything other than Aboriginal, and have perhaps never even considered their ethnic self-identification to be a matter open for debate at all. Continuing the analogy, the Inconsistently Declared Group could be seen as being in a state of Moratorium or Identity Diffusion, with their ethnic self-identification still undergoing revision. The Subsequently Declared group might, in turn, be viewed as akin to the Identity Achieved status, which, if we assume that having grappled with issues of identity and satisfactorily resolved them is psychologically beneficial, could help to explain their lower drop-out rate. These three patterns of ethnic self-identification could, then, be argued to have plausible relationships with Marcia's and Phinney's identity stages. The Previously Declared group, however, seems to have just as much of a claim to having achieved an identity (albeit as non-Aboriginal, rather than as Aboriginal) as the Subsequently Declared group, and so, following this logic, should be doing as well as the Subsequently Declared group in terms of school drop-out. The data demonstrate that this was not the case. Additionally, it is unclear how the Declared Once group should be classified according to Marcia's/Phinney's scheme. Furthermore, it is also somewhat questionable to assume that those students who were consistent in asserting their Aboriginality were unable or unwilling to explore their ethnic self-identification. Their consistency could instead easily be seen as a confident commitment to the ethnic component of their identity. Unfortunately, conceiving of the observed ethnic self-identification patterns along the lines of Marcia and Phinney would appear, then, to offer only a partial, and in this case clearly post-hoc, explanation of the differences in drop-out rates observed in this study.

It is also possible that these adolescents did not see the label 'of Aboriginal ancestry' to be particularly definitive of their ethnic self-identification. That is, it may be that the label "First Nations" or even the label of their particular band would have been more meaningful to these adolescents and that, if the questions posed had used these labels, they might have elicited different responses (see Akiba, Szalacha, & Garcia Coll, 2004). Still, even if the responses of these students would have been different given changes in the wording of the question, it is still not clear how that could explain the observed differences between the different patterns of ethnic self-identification and their accompanying drop-out rates. The label used here ("of Aboriginal ancestry") must have had some kind of meaning to students, given that students did not merely apply it to themselves at random, and that variations in its use were associated with marked differences in school drop-out rates.

4.2. Differences between those students who do and do not live on reserve

Before concluding, it seems useful to comment on an issue regarding ethnic self-identification suggested by the sharp differences between those young persons who live on a reserve and those who do not. As reported above, virtually all students who lived on a reserve never once changed their ethnic self-identification. It seems that changes in ethnic self-identification are not an ordinary occurrence for adolescents who are surrounded by others of their own culture — a similar conclusion can be inferred from Eschbach and Gómez's (1998) data regarding Hispanic adolescents. At the same time, this means that, for those Aboriginal adolescents who do not live on a reserve, changes in ethnic self-identification are even more common than the data at first suggest. That is, although just fewer than 50% of our entire sample changed their ethnic self-identification, this proportion increases to 68% if we consider only those students who did not live on a reserve. Some degree of ethnic self-identification switching is surprisingly common, at least for Aboriginal adolescents, especially when they are surrounded by people who do not self-identify as Aboriginal.

5. Conclusion

The research presented here fractures the widely-held presumption that, once past the ordinary confusions of childhood, people see themselves as consistently belonging to the same ethnic group over time. While this result alone is surprising and worthy of further study, the present data go on to demonstrate that the way in which Aboriginal adolescents change their ethnic self-identification over time is strongly related to their likelihood of dropping out of school. What is less clear is why certain patterns are associated with higher and lower drop-out rates. Several possible explanations are offered, but none of these seems to satisfactorily fit all the data. Further research is needed to explore these differences. For now, we can only assert that the ways that Aboriginal youths come to think of their ethnic self-

identification are related to whether or not they graduated from high school. Future research should investigate ethnic self-identification switching more broadly, for, given the magnitude of differences in school drop-out rates, these patterns may be related to other social outcomes as well. The implications of the present work, however, are clear on two points: ethnic self-identification varies; and that variation matters.

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