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Self-to-stereotype matching and musical taste: Is there a link between self-to-stereotype similarity and self-rated music-genre preferences?

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Abstract

Musical taste is believed to function as a social ‘badge’ of identity that might develop according to a process of ‘self-to-stereotype matching’. For this reason, individuals were expected to like musical styles that are stereotypically associated with fans that were similar to them. Three studies, each using a different measure of self-to-stereotype similarity, found that similarity to stereotypical music fans correlated significantly with participants’ self-rated musical tastes. These findings suggested individuals were more likely to prefer a musical style if they were similar, or at least perceived themselves similar, to the stereotypical fans associated with that musical style. In all three studies, evidence was also found to suggest that an individual’s similarity to stereotypical music fans might be used to predict their favourite musical style. Together these findings are argued to offer support for the idea that a process of self-to-stereotype matching might influence how individual musical tastes are formed, although alternate interpretations of this link between self-identity and musical taste (i.e., self-stereotyping) cannot be ruled-out without further investigation.

Keywords: Musical taste; Stereotypes; Self; Identity; Self-to-stereotype matching;

Self-to-stereotype matching and musical taste: Is there a link between self-to-stereotype similarity and self-rated music-genre preferences?

The idea that an individual's musical taste and identity are in some way related, saying something about the kind of person he or she is, has long been assumed both in popular culture and academic research. In particular, musical taste has been suggested to function symbolically as a social 'badge' of identity and group membership (Frith, 1983; North & Hargreaves, 1999). That is, people are expected to use their musical tastes as a means of self-presentation, conveying information about their likely characteristics and identity to others. This symbolic role is considered to have direct implications for how individual musical tastes develop. More specifically, musical taste is believed to develop according to a process of 'self-to-stereotype matching'.

Self-to-stereotype matching (or 'self-to-prototype matching' as it was originally described¹) is a decision-making strategy where personal choices are made on the basis of the perceived similarity between an individual's self-concept and his / her stereotypes (or prototypes) of behaviour (Niedenthal, Cantor & Kihlstrom, 1985). Research has shown that self-to-stereotype matching is likely to be important when making a number of everyday choices and decisions. For example, an individual's similarity with stereotypes / prototypes of behaviour has been found to be significantly related to their intention to smoke (Aloise-Young, Hennigan & Graham, 1996; Chassin, Presson, Sherman, Corty, & Olshavsky, 1981); intention to drink alcohol (Chassin, Telzloff, & Hershey, 1985; Norman, Armitage & Quigley, 2007); willingness to engage in unprotected sex (Gibbons, Gerrard & McCoy, 1995); intention to exercise (Rivis & Sheeran, 2003); intention to recycle (Mannetti, Pierro & Livi, 2004); level of academic achievement (Lane & Gibbons, 2007; Martinot & Monteil, 2000); academic preferences (Hannover & Kessels, 2004; Kessels & Taconis, 2012); clothing preferences (Ericksen

& Sirgy, 1992); mobile phone use (Walsh & White, 2007); job preferences (Moss & Frieze, 1993); and housing preferences (Niedenthal, Cantor, & Kilhstrom, 1985). Similarly, the self-concept is known to exert a significant influence on consumer attitudes, behaviour and product evaluation (see Sirgy, 1982 for a review). The way people decide which musical styles they like and listen to is believed to follow a similar process of self-to-stereotype matching.

Sociological analyses have appropriately highlighted the importance of socio-cultural and economic factors in the symbolic role of musical taste (e.g., Dolfsma, 1999; Hebdige, 1979). However, these insights have often been made at the expense of investigating the specific psychological processes that underlie the development of individual musical tastes. Indeed, North and Hargreaves' (1999) study is the only empirical research to date to have directly addressed the idea that peoples' musical tastes are related to their self-concept, demonstrating that an individual's similarity to stereotypical music fans was related to the extent to which they liked a musical style.

North and Hargreaves (1999) asked participants to rate the extent to which 30 statements (e.g., "They can be tough") were typical of chart pop and rap fans and of themselves. The correlations between ratings of self and typical chart pop fans were found to be significantly higher for participants who identified themselves as fans of chart pop than for those who identified themselves as fans of rap. Likewise, correlations between ratings of self and typical rap fans were found to be higher for participants who were fans of rap than for fans of chart pop. These findings were the first to empirically demonstrate a possible link between the self and an individual's musical preferences. However, despite this initial success, these findings were subject to limitations that will be discussed later.

The three studies reported here investigated whether participants' preference for a particular musical style is significantly related to their similarity to the stereotypical

fans of that musical style. Put simply, participants were expected to like a musical style more readily if they themselves were similar to the stereotypical fans of that musical style. To assess this, each study used a different measure of self-to-stereotype similarity.

An experimental design was not considered suitable for the present study given that it would be extremely difficult (if not impossible) to manipulate an individual's musical tastes and / or their similarity to the stereotypical fans of a particular musical genre. For this reason, the present investigations were simply intended to establish the links (if any) between self-to-stereotype similarity and participants' self-rated musical tastes. This link has only been examined once before (North & Hargreaves, 1999), and this investigation was subject to a number of important limitations. The present investigation was therefore intended to further explore this apparent correlation and to empirically test the long assumed idea that an individual's musical taste and identity are in some way related.

Study 1 – Musical taste and self-to-stereotype discrepancy

Although consistent with the idea of self-to-stereotype matching, North and Hargreaves' (1999) findings were subject to two important limitations. First, participants were asked to rate the typical fans of only two musical styles, namely chart pop and rap. Both musical styles are associated with particularly strong subcultures and may represent 'special cases' that were particularly likely to demonstrate self-to-stereotype matching. In view of this, the present study extended North and Hargreaves' (1999) original study and investigated the relationship between self-to-stereotype similarity and participants' preference for several different musical styles.

Second, when assessing self-to-stereotype similarity, North and Hargreaves (1999) considered a narrow range of characteristics relevant to personal identity (e.g., “These people can be rather lazy”). The present study therefore required participants to provide information on demographic factors (e.g., their gender, age, ethnicity) as well as a much broader range of personal qualities (e.g., their personality, intelligence, religious & political beliefs). For this reason, the measure of self-to-stereotype similarity used in Study 1 was arguably broader and more representative than the one used by North and Hargreaves (1999), taking account of both participants’ personal and social identities.

The principal aim of Study 1 was to investigate whether or not participants like musical styles more readily if they themselves were similar to the stereotypical fans of that musical style. In keeping with previous research (see Sirgy, 1982), Study 1 measured a participant’s similarity with the stereotypical music fans using a self-to-stereotype discrepancy score. As a result of this, negative correlations were expected between self-to-stereotype discrepancy scores and participants’ ratings of liking for each of the musical styles concerned (i.e., high preference ratings for a musical style associated with low self-to-stereotype discrepancy scores and vice-versa).

The second aim of Study 1 was to examine whether a process of self-to-stereotype matching was also evident in both participants’ favourite and least favourite musical style. If an individual’s musical tastes develop according to their similarity to stereotypical music fans, it is perhaps reasonable to expect that they will exhibit greater similarity with the stereotypical fans of their favourite musical style than with the stereotypical fans of their least favourite musical style. With this mind, it was expected that participants’ self-to-stereotype percentage discrepancy scores would be significantly lower for their favourite musical style than for their least favourite musical style. Finally, Study 1 also investigated whether it would be possible to predict

participants' favourite musical style on the basis of their self-to-stereotype discrepancy scores.

Method

Participants

One hundred and eight psychology undergraduates (86 females, 22 males) participated in the study as part of their course requirement. Participants' mean age was 19.11 years ($SD = .95$).

Measures

A questionnaire was used to establish the characteristics that participants considered typical of the fans of 13 musical styles. For example, participants were asked to "Please indicate the characteristics you consider to be typical of fans of reggae". Closed questions were used to identify the demographics (i.e., sex, ethnicity & religious beliefs) of typical fans of each musical style, where participants were instructed to select one option for each characteristic². Open questions were used to identify the perceived age and intelligence of typical musical style fans, where participants were required to give specific age (in years) and IQ estimates (following a brief explanation of IQ scores, e.g. a population mean of 100). The remaining items used 5-point rating scales to identify participants' perception of typical music fans' (i) family income (1 = *Extremely poor*, 3 = *Average income* & 5 = *Extremely rich*); (ii) personality traits (e.g., 1 = *Introverted*, 3 = *Neutral* & 5 = *Extroverted*)³; (iii) political orientation (1 = *Socialism*, 3 = *Neutral* & 5 = *Conservatism*); (iv) religiosity (1 = *Not religious at all* & 5 = *Highly religious*); (v) likelihood of participation in anti-social behaviour (1 = *Never* & 5 = *Highly likely*); and (vi) vulnerability to 'at-risk' behaviour (1 = *Never* & 5 =

Highly likely). The order in which participants judged the typical fans of each of the 13 musical styles was randomised.

Participants were then asked to indicate their own characteristics using identical items to those previously used to establish their stereotypes of the fans of the 13 different musical styles. Based on this, each participant's similarity to different stereotypes of musical taste was calculated.

Self-to-stereotype discrepancy scores for each musical style were calculated for each participant according to the percentage by which his / her characteristics differed from those of the stereotypical music fan of each musical style on each of the questionnaire items. Percentage difference scores were used as a measure of self-to-stereotype discrepancy both to avoid the arbitrary assignment of similarity scores and also to standardise mean differences between characteristics using different rating scales (e.g., 5-point scale used to measure personality, whereas 'open' questions were used to measure age and intelligence). Accordingly, if a participant's characteristics (e.g., ethnicity, age, etc.) were identical to those of stereotypical of music fans, they were given a self-to-stereotype discrepancy score of 0%.

For characteristics measured using closed questions (i.e., sex, ethnicity, and religious belief), self-to-stereotype discrepancy scores were calculated between participants' own characteristics and the *modal* characteristics of the stereotypical music fan of each of the 13 musical styles (e.g., participants most frequently considered the typical reggae fan to be male, black & religious-other)⁴. In these cases, participant's characteristics were considered either identical or non-identical to those of stereotypical music fans, such that participants would score either 0% or 100% self-to-stereotype discrepancy respectively. For the remaining characteristics measured using open questions (e.g., age, intelligence, personality), self-to-stereotype discrepancy scores were calculated as the percentage difference between a participant's own characteristics

and the *mean* characteristics of stereotypical music fans (e.g., on average, participants considered the typical chart pop fan to be 14.02 years old)⁵. For each of the 13 musical styles, an overall self-to-stereotype discrepancy score was calculated as the sum of the percentage discrepancy scores for all 15 characteristics investigated.

Participants were then asked to rate each of the 13 musical styles from 0 (*I hate this musical style*) to 10 (*I absolutely love this musical style*). These ratings were used as a measure of participants' musical taste. Following this, participants were asked to indicate which of the 13 musical styles was their favourite and which was their least favourite musical style.

Results

Pearson's *r* correlational analyses were conducted to establish the relationships between participants' overall self-to-stereotype discrepancy scores and ratings of their musical tastes. Table 1 shows that, of the 13 musical styles investigated, significant negative correlations were found between self-to-stereotype discrepancy scores and participants' ratings of musical taste for five musical styles (i.e., reggae, heavy metal, hip-hop / rap, chart pop & R'n'B). Together these correlations suggest that, on average, self-to-stereotype discrepancy scores accounted for 6.59% of the variance in participants' self-reported musical preferences (i.e., range = 3.61% to 8.41%).

- Table 1 about here -

A repeated measures *t*-test was also used to test whether overall self-to-stereotype discrepancy scores differed significantly between participants' favourite and least favourite musical style. Participants' overall self-to-stereotype percentage discrepancy scores were

significantly lower for their favourite musical style ($M = 530.42$, $S.D = 113.86$) than for their least favourite musical style ($M = 604.91$, $S.D = 152.99$), where $t(107) = 4.60$, $p < .001$.

Eleven binary logistic regressions⁶ were then used to test whether it would be possible to predict participants' favourite musical style from their overall self-to-stereotype discrepancy scores. In each case, participants' responses were transformed into a dichotomous variable (e.g., is RnB your favourite musical style? – Y/N)⁷ and participants' self-to-stereotype discrepancy score for that musical style (e.g., RnB) was used as the regression's sole predictor variable. Of the 11 musical styles tested, self-to-stereotype discrepancy scores only significantly predicted whether or not heavy metal was participants' favourite musical style ($\chi^2(1, N = 108) = 6.23$, $p < .05$).

Discussion

The findings of Study 1 support the idea that an individual's musical taste and identity are in some way related. Significant negative correlations were found between self-to-stereotype discrepancy scores and ratings of musical taste for five of the thirteen musical styles investigated. These correlations suggest that the greater a participant's similarity to the stereotypical fans of each of these five musical styles (i.e., reggae, heavy metal, hip-hop / rap, chart pop, & R'n'B), the more likely they were to express a preference for that musical style.

A comparison of overall self-to-stereotype discrepancy scores for both participants' favourite and least favourite musical styles showed that, on average, participants' shared significantly more characteristics with those of the stereotypical fans of their favourite musical style than with the stereotypical fans of their least favourite musical style. Initial evidence was also found to suggest that participants' similarity to stereotypical music fans might be used to predict their favourite musical

style. Specifically, participants were found more likely to report heavy metal as their favourite musical style if they showed greater similarity with a typical heavy metal fan. Together, these findings highlight a relationship between self-to-stereotype similarity and participants' musical taste that is consistent with previous research (North & Hargreaves, 1999), and as such might be argued to lend support to the idea that a process of self-to-stereotype matching might be responsible for how individuals form their musical tastes.

Importantly, the present findings also suggest that the link between the self and an individual's musical taste is one not limited only to chart pop and rap music (North & Hargreaves, 1999), but rather a relationship that is likely to be evident with other musical styles. However, for some reason, the expected relationship between self-to-discrepancy scores and individual musical tastes was not found for eight of the thirteen musical styles investigated (e.g., jazz, classical & soul music). One possible explanation for this might be that the stereotypes and subcultures associated with each of these eight musical styles are perhaps less clear-cut and collectively agreed upon than the five musical styles where significant correlations were found. With this in mind, it may be more appropriate for future investigations to calculate each participant's self-to-stereotype discrepancy scores according to their own personal stereotypes, rather in relation to collective stereotypes (based on the mean and modal ratings assigned by all participants).

The main limitation of this first study was the self-to-stereotype discrepancy score used to measure each participant's relative similarity to the stereotypical fans associated with each of the musical styles investigated. Firstly, by standardising the discrepancy scores across all 15 characteristics, the present study may have overlooked the possibility that self-to-stereotype similarity on certain characteristics (e.g., age, ethnicity) may be more important to participants than others (e.g., intelligence,

personality). Secondly, the self-to-stereotype discrepancy scores calculated for each participant were unable to determine if they considered themselves similar to stereotypical music fans. Regardless of any *actual* similarity, an individual's *perceived* similarity to stereotypical music fans might prove to be more influential to how musical tastes for particular musical styles are formed. To investigate this possibility, participants in Study 2 were asked to indicate how similar they considered themselves to the stereotypical music fans associated with different musical styles.

Study 2 – Musical taste and perceived self-to-stereotype similarity

The self-to-stereotype discrepancy scores used in Study 1 may not have been the most appropriate to assess each participant's relative similarity to stereotypical music fans, and its use might explain the pattern of correlations found. Specifically, using this measure meant that Study 1 was unable to account for the possibility that, rather being based on any *genuine* similarities, an individual's musical tastes might develop according to their *perceived* similarity to stereotypical music fans. To investigate this possibility, the present study asked participants to indicate how similar they considered themselves to be to stereotypical music fans on many of the same dimensions (e.g., sex, ethnicity, personality, religious beliefs) previously studied in Study 1.

Method

Participants

Sixty psychology undergraduates (41 females, 19 males) participated in the study voluntarily. Participants' mean age was 20.88 years ($SD = 2.66$).

Measures

A questionnaire was used to establish the extent to which participants considered themselves similar to the stereotypical fans for each of the 14 musical styles investigated⁸. For each musical style, participants were asked to “think about what they consider to be [for example] a typical chart pop fan”. Participants were then asked to indicate their perceived similarity to typical music fans on many of the dimensions studied previously in Study 1. First, participants were asked to indicate whether they considered themselves to be of the same sex and ethnicity of typical music style fans (YES or NO). In both cases, a participant’s characteristics were considered to be either identical or non-identical to those of stereotypical music fans, and as such they would receive a self-to-stereotype similarity score of either 10 or 0 respectively.

For the remaining six characteristics (i.e., age, family background, personality, intelligence, religious & political beliefs), participants were asked to indicate how similar they considered themselves to the typical fan of the musical style in question using an 11-point rating scale (0 = *Not at all* and 10 = *Very much*). In each case, these ratings were used as a measure of a participant’s perceived self-to-stereotype similarity. The order in which participants judged their similarity to the typical fans of each of the 14 musical styles was randomised. Accordingly, an overall perceived self-to-stereotype similarity score was calculated for each of the 14 musical styles as the sum of each participant’s self-to-stereotype similarity scores for all eight of the characteristics investigated (i.e., the maximum self-to-stereotype similarity score for each musical style was 80). Finally, participants were asked to rate the extent to which they liked each of the 14 musical styles (where 0 = *I hate this musical style* and 10 = *I absolutely love this musical style*), and which of the 14 musical styles was their favourite and least favourite musical style.

Results

Pearson's r correlational analyses were conducted to establish the relationships between participants' ratings of musical taste and their overall perceived self-to-stereotype similarity score for each of the 14 musical styles investigated. Table 2 shows that significant positive correlations were found between perceived self-to-stereotype similarity scores and participants' ratings of musical taste for twelve of the fourteen musical styles investigated. Together these correlations suggest that, on average, perceived self-to-stereotype similarity scores accounted for 27.41% of the variance in participants' self-reported musical preferences (i.e., range = 7.80% to 57.76%).

- Table 2 about here -

A repeated measures t -test was used to test whether the extent to which participants' rated themselves similar to typical fans of their favourite and least favourite musical style differed significantly. This showed that, on average, participants rated themselves significantly more similar to fans of their favourite musical style (55.25, $SD = 10.96$) than to fans of their least favourite musical style (29.38; $SD = 13.81$) ($t(59) = 11.79, p < .001$).

Ten binary logistic regressions⁹ were then used to test whether it would be possible to predict participants' favourite musical style from their perceived self-to-stereotype similarity scores. In each case, participants' responses were transformed into a dichotomous variable (e.g., is indie rock your favourite musical style? – Y/N)¹⁰ and participants' perceived self-to-stereotype score for that musical style (i.e., Indie rock) was used as the regression's sole predictor variable. Of the 10 musical styles tested, perceived self-to-stereotype similarity scores significantly predicted whether or not

participants reported hip-hop ($\chi^2(1, N = 60) = 5.83, p < .05$), chart pop ($\chi^2(1, N = 60) = 18.16, p < .001$), dance music ($\chi^2(1, N = 60) = 7.51, p < .01$), indie rock ($\chi^2(1, N = 60) = 9.67, p < .01$), rock music ($\chi^2(1, N = 60) = 4.99, p < .05$) and RnB ($\chi^2(1, N = 60) = 13.67, p < .001$) as their favourite musical style.

Discussion

In keeping with Study 1, the present findings offer further evidence for a link between an individual's musical taste and their self-identity. With the exception of two musical styles (i.e., soul & opera), significant positive correlations were found between overall perceived self-to-stereotype similarity scores and ratings of musical taste. Participants were found to rate themselves, on average, significantly more similar to the typical fans of their favourite musical style than to the fans of their least favourite musical style. It was also found that it might be possible to predict whether or not participants would report six musical styles (i.e., hip-hop/rap, chart pop, dance music, indie rock, rock music & RnB) as their favourite on the basis of their perceived self-to-stereotype similarity scores. In each of these cases, participants were found more likely to report a musical style as their favourite if they considered themselves to be similar to its typical fan.

The present findings also show that the relationship between self-identity and musical taste is likely to extend beyond chart pop and rap music (North & Hargreaves, 1999), and the five musical styles identified in Study 1. For this reason, it seems increasingly reasonable to assume that a process of self-to-stereotype matching might influence how individual musical tastes are formed. However, like Study 1, the expected relationship between perceived self-to-stereotype similarity and musical taste was not found for soul music and opera. In both cases, participants may have been

unclear (or at least, less uncertain) about the stereotypes and subcultures associated with soul music and opera, and as a result they failed to engage in self-to-stereotype matching for both of these musical styles.

Upon closer inspection, the significant correlations found between perceived self-to-stereotype similarity and musical taste in the present study were considerably stronger (mean $r = .50$) than those with actual self-to-stereotype similarity (mean $r = -.26$) found in Study 1. This disparity between the two studies might be regarded as the first indication that an individual's perceived similarity to stereotypical music fans might exert a greater influence upon how their musical tastes are formed than any real similarity to the same stereotypes.

Study 3 - Musical taste and perceived self-to-stereotype similarity: A global measure

In Study 2, participants were found to like musical styles more readily if they perceived themselves similar to the stereotypical fan of that musical style. This study used a composite measure of self-to-stereotype similarity, where scores were calculated as the sum of each participant's self-rated similarity on several different characteristics (e.g., ethnicity, age, personality). Again, this might not be the most appropriate means to establish an individual's perceived similarity to stereotypical music fans. For example, it seems unlikely that the proposed process of self-to-stereotype matching is reliant on individuals calculating the sum of all their perceived similarities to stereotypical music fans. Instead, it is somewhat more plausible to expect that an individual's musical tastes might develop according to an overall impression of their similarity to stereotypical music fans. Study 3 investigated this idea using a global measure of perceived self-to-stereotype similarity to re-examine the expected relationship between self-to-stereotype similarity and musical taste.

Method

Participants

One hundred and three psychology undergraduates (89 females, 14 males) participated in the study voluntarily. Participants' mean age was 19.42 years ($SD = 2.13$).

Measures

A questionnaire was used to establish the extent to which participants considered themselves similar to the stereotypical fans for each of the 14 musical styles investigated. For each musical style, participants were asked to "think about what they consider to be [for example] a typical heavy metal fan". Participants were then asked to answer four different questions: (1) "I am in many ways similar to typical heavy metal fans"; (2) "I identify with typical heavy metal fans"; (3) "I am different from the typical fan of heavy metal"; (4) "I normally like fans of heavy metal"¹¹. In each case, participants answered using an 11-point rating scale (0 = *Not at all* and 10 = *Very much*). For each of the fourteen musical styles, the order of these four questions was randomised. In addition to this, the order in which participants judged the typical fans of each of the 14 musical styles was also randomised.

Participants were then asked to rate the extent to which they liked each of the 14 musical styles (where 0 = *I hate this musical style* and 10 = *I absolutely love this musical style*). Following this, participants were asked to indicate which of the 14 musical styles was their favourite and which was their least favourite musical style.

Results

Pearson's r correlational analyses were conducted to establish the relationships between participants' ratings of musical taste and the extent they rated themselves as similar to the typical fans of each of the 14 musical styles investigated. Table 3 shows that significant positive correlations were found between perceived self-to-stereotype similarity scores and participants' ratings of musical taste for all fourteen musical styles investigated. Together these correlations suggest that, on average, perceived self-to-stereotype similarity scores accounted for 44.75% of the variance in participants' self-reported musical preferences (i.e., range = 26.01% to 62.41%).

- Table 3 about here -

A repeated measures t -test was used to test whether participants' self-rated similarity to the typical fans of their favourite and their least favourite musical style differed significantly. This showed that, on average, participants perceived themselves to be significantly more similar to the typical fans of their favourite musical style ($M = 7.95$, $S.D = 1.59$) than to the typical fans of their least favourite musical style ($M = 1.43$, $S.D = 1.64$), where $t(102) = 27.78$, $p < .001$.

Thirteen binary logistic regressions¹² were then used to test whether it would be possible to predict participants' favourite musical style from their perceived self-to-stereotype scores. In each case, participants' responses were transformed into a dichotomous variable (e.g., is heavy metal your favourite musical style? – Y/N)¹³ and participants' self-rated self-to-stereotype similarity scores for that musical style (e.g., Heavy metal) was used as the regression's sole predictor variable. Of the 13 musical styles tested, self-rated self-to-stereotype similarity scores significantly predicted whether or not participants reported hip-hop ($\chi^2(1, N = 103) = 11.51$, $p < .01$), classical music ($\chi^2(1, N = 103) = 11.92$, $p < .01$), chart pop ($\chi^2(1, N = 103) = 13.42$, $p < .001$),

dance music ($\chi^2(1, N = 103) = 12.54, p < .001$), indie rock ($\chi^2(1, N = 103) = 37.29, p < .001$), soul music ($\chi^2(1, N = 103) = 8.67, p < .01$), rock music ($\chi^2(1, N = 103) = 23.71, p < .001$) and RnB ($\chi^2(1, N = 103) = 39.48, p < .001$) as their favourite musical style.

Discussion

In keeping with the previous two studies, the present findings further support the idea that an individual's musical taste and their self-identity are related in some way.

Significant positive correlations were found between a global measure of self-to-stereotype similarity and ratings of musical taste. Participants were found to rate themselves significantly more similar to typical fans of their favourite musical style than to fans of their least favourite musical style. It was also found that participants' self-rated similarity to typical music fans might be used to predict whether or not they would report eight musical styles (i.e., hip-hop/rap, classical music, chart pop, dance music, indie rock, soul music, rock music & RnB) as their favourite. In each case, participants were found more likely to report a musical style as their favourite if they considered themselves to be similar to its typical fan. Together, these findings suggested that participants were more likely to like a particular musical style if they considered themselves similar to the stereotypical fans associated with that musical style.

When compared to the significant correlations found in Studies 1 and 2 (mean $r = -.26$ & $.50$ respectively), it is interesting to note that the same relationships observed in the present study were consistently stronger (mean $r = .66$). Not only that, but significant correlations were found for all 14 musical styles, whereas in the previous two studies such correlations were evident only for five and twelve of the musical styles investigated. This apparent discrepancy with the findings of Study 1 again lends weight

to the argument that perceived similarity, and not actual similarity, to stereotypical music fans is likely to exert the greatest influence on the development of individual musical tastes. In addition to this, the present findings might also be interpreted to suggest that musical tastes are more likely to develop according to an overall impression of one's own similarity to stereotypical music fans, than to the sum of all their perceived similarities as was found in Study 2.

Summary and General discussion

The three studies reported here support the idea that an individual's musical taste and identity are in some way related. In each case, participants' ratings of musical taste were found to correlate significantly with a measure of self-to-stereotype similarity. Participants in each study were found to rate themselves significantly more similar to the typical fans of their favourite musical style than to the fans of their least favourite musical style. In addition to this, participants were found more likely to report a musical style as their favourite if they considered themselves to be similar to its typical fan. Taken together, the findings of these three studies seem to suggest that an individual is more likely to prefer a particular musical style if he / she is similar, or at least perceive themselves to be similar, to its stereotypical fans.

Using a self-to-stereotype discrepancy measure, Study 1 found evidence to suggest that participants who were similar to the stereotypical fans of a particular musical style, were more likely to express a preference for that musical style. However, these correlations were relatively weak (mean $r = -.26$), and were limited to only five of the thirteen musical styles investigated (i.e., reggae, heavy metal, hip-hop / rap, chart pop, & R'n'B). In studies 2 and 3, two different measures of perceived self-to-stereotype similarity were used. In both cases, participants' self-rated similarity to

stereotypical music fans was found correlate positively with ratings of musical taste. Interestingly, these correlations were consistently stronger than those found in Study 1 (mean $r = .50$ & $.66$ respectively), and extended across most, if not all, of the musical styles investigated.

The apparent disparity between the correlations found in these three studies might be regarded the first indication that an individual's *perceived* similarity to stereotypical music fans might exert a greater influence upon how musical tastes are formed than any genuine similarities between themselves and the same stereotypes. To test this proposition, future investigations should compare these different measures of self-to-stereotype similarity to establish which best predicts participants' musical tastes.

Over the course of the three studies reported here, it is clear that an individual's self-identity and their musical tastes are, in some way, linked. The significant relationships found between self-to-stereotype similarity and musical taste found in all three studies were consistent with the correlations found in North and Hargreaves' (1999) study, and as such the present findings are considered to offer the best evidence, to date, for the idea that a process of self-to-stereotype matching might influence how an individual's musical tastes are formed. However, because of the correlational research design used, the present findings do not permit conclusions regarding the causal relationship between self-to-stereotype similarity and one's musical tastes. Indeed, it cannot be ruled-out that the correlations observed between self-to-stereotype similarity and musical taste were the result of a process of self-stereotyping (e.g., Turner, Hogg, Oakes, Reicher & Wetherell, 1987), rather than self-to-stereotype matching.

If the present findings were the result of self-stereotyping, participants in all three studies may have regarded themselves similar to the stereotypical music fans of a particular musical style *because* they liked that musical style. In order to distinguish

between the processes of self-stereotyping and self-to-stereotype matching, future research should investigate how the experimental manipulation of perceived self-to-stereotype similarity affects participants' musical preferences, the music they choose to listen to and consider buying. Similarly, longitudinal studies might look to investigate whether an individual's similarity to stereotypical music fans predicts their future musical preferences, or if developments in musical taste lead to changes in perceived self-to-stereotype similarity.

Although the present findings provide further insights into the possible links between musical taste and self-identity, the present studies had a number of limitations that should be acknowledged. In all three studies the participant samples used were small, disproportionately female and relatively homogeneous both in terms of their age and musical tastes (i.e., most participants were 19 or 20 years-old and reported indie rock as their favourite musical style). It therefore seems important to investigate whether this apparent link between musical taste and self-identity is one that extends beyond the undergraduate samples studied here.

In addition to this, the present investigations also failed to consider the influence that individual differences might exert on the process of self-to-stereotype matching. Research has shown that the extent to which people engage in self-to-stereotype matching is likely to vary significantly according to several different psychological factors. For example, self-esteem, self-concept clarity, social desirability and self-monitoring (Helgeson & Supphellen, 2004; Niedenthal, Cantor, & Kihlstrom, 1985; North & Hargreaves, 1999; Setterlund & Niedenthal, 1993) have all been found to mediate the extent to which individuals engage in self-to-stereotype matching. In the light of this, it cannot be assumed that everyone will employ self-to-stereotype matching to the same extent when forming their musical likes and dislikes, and all future investigations on this topic should aim to take this variability into account.

In summary, the present findings offer initial support for the idea that a process of self-to-stereotype matching might, to some extent, account for how peoples' musical tastes are formed. Three studies, each using a different measure of self-to-stereotype similarity, found that participants' similarity to the stereotypical fans of a particular musical style correlated significantly with the extent that they liked that musical style. These findings suggested that individuals were more likely to prefer a particular musical style if they were similar, or at least perceived themselves to be similar, to the stereotypical fans associated with that musical style. With this in mind, the music people choose to listen to, and their preferences for particular musical styles and artists may be understood to assume greater personal significance, perhaps serving as a social 'badge' of their identity (Frith, 1983; North & Hargreaves, 1999) used to present a particular image, convey their likely characteristics, or display group membership to others.

Notes:

¹ The phrase "self-to-stereotype matching" was used instead of "self-to-prototype matching" as it was considered to more appropriately reflect the assumption that these decisions are made according to *group* representations (i.e., stereotypes), rather than to an exemplar *individual* (i.e., a, prototype), associated with each musical style.

² Participants were given five response options to choose from for all questions concerning ethnicity (i.e., *Asian, Black, Hispanic, White, or Other ethnic background*), whilst nine response options were given for all questions concerning religious belief (e.g., *Agnostic, Atheist, Religious-Buddhism, Religious-Christianity*, etc.).

³ Participants were asked to rate typical music fans on five bipolar rating scales for each of the "Big Five" personality traits (Digman, 1990).

⁴ In this example, an atheistic, white male participant would be calculated to be 100% discrepant from the modal ethnicity and religious belief of a typical reggae fan. In contrast, the same participant would be calculated to be 0% discrepant from the modal sex of a typical reggae fan.

⁵ In this example, a 19 year-old participant would be calculated as 35.54% discrepant from the mean age of a typical chart pop fan (i.e. $(14.0185 - 19 / 14.0185) \times 100 = 35.54\%$).

⁶ Binary logistic regressions were not carried out for two of the 13 musical styles investigated (i.e., country music & opera) because none of the 108 participants reported them as their favourite musical style.

⁷ These newly created dichotomous variables were coded such that 'No' = 0 and 'Yes' = 1.

⁸ Punk was added to the list of thirteen musical styles used in Study 1.

⁹ Binary logistic regressions were not carried out for four of the 14 musical styles investigated (i.e., country music, heavy metal, punk & opera) because none of the 60 participants reported them as their favourite musical style.

¹⁰ See note 6.

¹¹ Questions 2, 3 & 4 were included to draw participants' attention away from question 1.

¹² Binary logistic regressions were not carried out for one of the 14 musical styles investigated (i.e., opera) because none of the 103 participants reported this as their favourite musical style.

¹³ See note 6.

References

- Abeles, H.F. (1980). Responses to music. In *Handbook of music psychology* (ed. D.A. Hodges). National Association for Music Therapy, Lawrence, KS.
- Aloise-Young, P.A., Hennigan, K.M., & Graham, J.W. (1996). Role of the self-image and smoker stereotype in smoking onset during early adolescence: A longitudinal study. *Health Psychology, 15*, 494 – 497.
- Chassin, L., Presson, C.C., Sherman, S.J., Corty, E., & Olshavsky, R.W. (1981). Self-images and cigarette smoking in adolescence. *Personality and Social Psychology Bulletin, 7*, 670 – 676.
- Chassin, L., Tetzloff, C., & Hershey, M. (1985). Self-image and social-image factors in adolescent alcohol use. *Journal of Studies on Alcohol, 46*, 39 – 47.
- Digman, J.M. (1990). Personality structure: Emergence of the five-factor model. *Annual Review of Psychology, 41*, 417 – 440.
- Dolfsma, W. (1999). The consumption of music and the expression of values: A social economic explanation for the advent of pop music. *American Journal of Economics and Sociology, 58*, 1019 – 1046.
- Ericksen, M.K., & Sirgy, M.J. (1992). Employed females' clothing preferences, self-image congruence, and career anchorage. *Journal of Applied Social Psychology, 22*, 408 – 422.

Frith, S. (1983). *Sound effects: Youth, leisure and the politics of rock 'n' roll*.

Constable: London.

Gibbons, F.X., Gerrard, M., & Boney-McCoy, S.B. (1995). Prototype perception predicts (lack of) pregnancy prevention. *Personality and Social Psychology Bulletin*, 21, 84 – 92.

Hannover, B. & Kessels, U. (2004). Self-to-prototype matching as a strategy for making academic choices. Why high school students do not like math and science. *Learning and Instruction*, 14, 51 – 67.

Hebdige, D. (1979). *Subculture: The meaning of style*. Oxon: Routledge.

Helgeson, J.G., & Supphellen, M. (2004). A conceptual and measurement comparison of self-congruity and brand personality: The impact of socially desirable responding. *International Journal of Market Research*, 46, 205-236.

Kessels, U., & Taconis, R. (2012). Alien or alike? How the perceived similarity between the typical science teacher and a student's self-image correlates with choosing science at school. *Research in Science Education*, 42, 1049 – 1071.

Lane, D.J., & Gibbons, F.X. (2007). Am I the typical student? Perceived similarity to student prototypes predicts success. *Personality and Social Psychology Bulletin*, 33, 1380 – 1391.

- Mannetti, L., Pierro, A., & Livi, S. (2004). Recycling: Planned and self-expressive behaviour. *Journal of Environmental Psychology, 24*, 227 – 236.
- Martinot, D., & Monteil, J.M. (2000). Use of the self-concept in forming preferences by French students of different levels of academic achievement. *The Journal of Social Psychology, 140*, 119 – 131.
- Moss, M.K., & Frieze, I.H. (1993). Job preferences in the anticipatory socialization phase: a comparison of two matching models. *Journal of Vocational Behavior, 42*, 282 – 297.
- Niedenthal, P.M., Cantor, N., & Kihlstrom, J.F. (1985). Prototype matching: a strategy for social decision making. *Journal of Personality and Social Psychology, 48*, 575 – 584.
- Norman, P., Armitage, C.J., & Quigley, C. (2007). The theory of planned behavior and binge drinking: Assessing the impact of binge drinker prototypes. *Addictive Behaviors, 32*, 1753 – 1768.
- North, A.C. & Hargreaves, D.J. (1999). Music and adolescent identity. *Music Education Research, 1*, 75 – 92.
- Rivis, A., & Sheeran, P. (2003). Social influences and the theory of planned behaviour: Evidence for a direct relationship between prototypes and young people's exercise behaviour. *Psychology & Health, 18*, 567 – 583.

Setterlund, M.B., & Niedenthal, P.M. (1993). "Who am I? Why am I here?" Self-esteem, self-clarity, and prototype matching. *Journal of Personality and Social Psychology*, 65, 769 – 780.

Sirgy, M.J. (1982). Self-concept in consumer behaviour: A critical review. *Journal of Consumer Research*, 9, 287 – 300.

Turner, J. C., Hogg, M.A., Oakes, P.J., Reicher, S.D., & Wetherell, M.S. (1987). *Rediscovering the social group: A self-categorization theory*. Oxford: Basil Blackwell.

Walsh, S.P., & White, K.M. (2007). Me, my mobile, and I: The role of self- and prototypical identity influences in the prediction of mobile phone behavior. *Journal of Applied Social Psychology*, 37, 2405 – 2434.

Table 1.

Summary of correlations between ratings of musical taste and self-to-stereotype discrepancy scores

	Musical taste												
	Reggae	Jazz	Country music	Heavy metal	Hip-hop / Rap	Classical music	Chart Pop	Dance music	Indie Rock	Soul music	Rock music	Opera	R'n'B
Self-to-stereotype discrepancy (%)	-.29**	-.07	-.01	-.19*	-.29**	.00	-.26**	-.06	-.16	-.09	-.17	-.08	-.24*

* $p < .05$; ** $p < .01$

N = 108 in all cases.

Table 2.

Summary of correlations between ratings of musical taste and perceived self-to-stereotype similarity

	Musical taste													
	Reggae	Jazz	Country music	Heavy metal	Hip-hop / Rap	Classical music	Chart pop	Dance music	Indie rock	Punk	Soul music	Rock music	Opera	R'n'B
Self-to-stereotype similarity	.38**	.42**	.43**	.54**	.28*	.36**	.76**	.52**	.67**	.65**	.19	.63**	.16	.41**

* $p < .05$; ** $p < .01$

N = 60 in all cases.

Table 3.
Summary of correlations between ratings of musical taste and perceived self-to-stereotype similarity (Global measure)

	Musical taste													
	Reggae	Jazz	Country music	Heavy metal	Hip-hop / Rap	Classical music	Chart pop	Dance music	Indie rock	Punk	Soul music	Rock music	Opera	R'n'B
Self-to-stereotype similarity	.60*	.61*	.70*	.61*	.65*	.67*	.73*	.79*	.78*	.73*	.51*	.69*	.55*	.68*

* $p < .001$

N = 103 in all cases.